

BENEATH THESE WATERS

Archeological and Historical Studies
of
11,500 Years Along the Savannah River



Sharyn Kane & Richard Keeton

Book Design and Layout:
Sharyn Kane & Richard Keeton
Marietta, Georgia

Technical Consultants:
Southeastern Archeological Services, Inc.
Athens, Georgia

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*Archeological and Historical Studies
of 11,500 Years Along the Savannah River*

By

Sharyn Kane & Richard Keeton

*Funded by
U. S. Army Corps of Engineers
Savannah District*

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Southeast Region*



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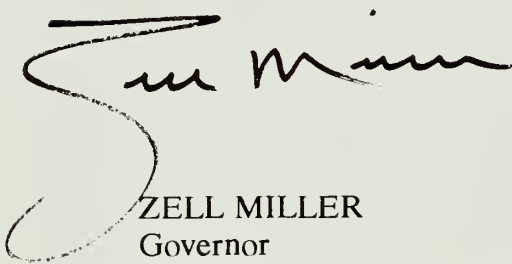
Foreword

In 1971, President Richard Nixon signed Executive Order 11593, *Protection and Enhancement of the Cultural Environment*, which required federal agencies to take the lead in establishing programs for the protection of significant historic resources "*for the inspiration and benefit of the people...*". This landmark directive has been a central force in the development and ultimate success of cultural resource management programs that have required close cooperation between federal and state agencies.

Two federal agencies, in consultation with our state governments, have played key roles in these endeavors: the National Park Service and the U.S. Army Corps of Engineers. With the Richard B. Russell Dam and Lake Cultural Resource Investigations Program, these agencies combined forces to produce a truly outstanding result. This multi-million dollar, twenty-year program has yielded a vast array of invaluable information on the cultural history of the upper Savannah River in the central Piedmont of Georgia and South Carolina.

The National Park Service and the Corps have placed heavy emphasis on producing a popular account that is both informative and entertaining. This volume is easy to read and successfully informs the reader. To the extent that this popular account has been prepared "*for the inspiration and benefit of the people,*" we believe it to be an exemplary effort.

We applaud these efforts to inform the public of the rich cultural heritage of our states.



ZELL MILLER
Governor
State of Georgia



CARROLL A. CAMPBELL, JR.
Governor
State of South Carolina

Preface

While it will always be true that archeologists need to communicate effectively among themselves, it now is abundantly clear that unless they also communicate effectively with the general public,...all else will be wasted effort.

—McGimsey and Davis 1977: 89

To understand what is happening today or what will happen in the future, I look back.

—Oliver Wendell Holmes

Beneath These Waters is an interpretation for a general audience of archeological and historical research conducted in the Richard B. Russell Multiple Resource Area from 1969 through 1985. The research preceded building of the Richard B. Russell Dam and Lake, a U.S. Army Corps of Engineers Project in the upper Savannah River Valley, at the Georgia-South Carolina boundary. In assembling a non-technical account of at least 11,000 years of human occupation in four counties surrounding the project area, emphasis has been placed on explaining the information so that it will be entertaining and easily understood, while retaining accuracy.

In preparing this volume, we believe that professional writers Sharyn Kane and Richard Keeton have shown their adeptness in the practice of public writing on technical subjects. Kane and Keeton's writings have appeared in highly competitive forums such as airline and computer magazines. Keeton, a former staff reporter for the Chicago Tribune, was once nominated by that newspaper for the Pulitzer Prize. Yet, because they are not formally trained archeologists or historians and were totally unfamiliar with the world of federal contracting, they faced distinct disadvantages in taking on the task of writing this book. Their assignment necessitated a massive crash course in archeological method and general practice, aided in large part by the existing and excellent Richard B. Russell Cultural Resources Investigations Program technical summary volumes. Still, this estrangement from technical know-how gave them an important advantage in writing the RBR popular history: nearly complete objectivity in viewing the overall project and its results, unencumbered by the predictable baggage of professional biases, cultivated styles, and emotions attached to a project of this magnitude and importance.



John H. Jameson, Jr.
Interagency Archeological Services Division
National Park Service, Southeast Region

Acknowledgements

Writing about what human life was like over 11,500 years could be an insurmountable task. Yet, as we delved deeper into the stacks of reports about the upper Savannah River region, the curtain over the past began to part, and the people who once lived near the river slowly came to life. Their stories and our long look back filled us with deep appreciation for the struggles and triumphs of people in all epochs.

Many individuals were helpful in providing information about the area's people, particularly the archeologists, historians, and other scientists who wrote about their research in detailed accounts published in the Russell Papers. David G. Anderson and J. W. Joseph condensed these reports in two technical volumes, with contributors James E. Cobb, Mary Beth Reed, and Joseph Schuldenrein. David Anderson also provided more information and illustrations to enhance this public volume.

John Ehrenhard and John Jameson of the National Park Service, who guided our own research and writing efforts, were invariably helpful and professional. We owe a special debt to John Jameson for his conception of how the story should be told, helpful design suggestions, and archeological insights. He also led us on an informative tour of the lost town of Petersburg and many other sites. Help from Margaret Snyder, contracting officer, is also appreciated, as well as the excellent editing suggestions from Virginia Horak. Dean Wood, Kay Wood, Tom Gresham, and Chad Braley of Southeastern Archeological Services in Athens, Georgia, served as technical advisers, sharing their expertise and reading the manuscript for technical accuracy.

Many of those who deserve credit made their contributions before we arrived to write this final account. Among them was the late Victor Carbone who had a vision of how the Russell studies should be conducted. He was a driving force behind much of the planning, cooperation between agencies, and quality of research and reports. He and the Atlanta-based Interagency Archeological Services Division of the National Park Service developed detailed descriptions of work leading to the research contracts. He also saw that competitive contracting procedures went beyond making awards for low bids, and evaluated researchers' abilities to produce the best work. At the U. S. Army Corps of Engineers, James E. Cobb, District Senior Archeologist, and his successor, Paul D. Rubenstein, were instrumental in shaping and guiding the investigations, while Colonel Tilford C. Creel, the District Engineer, was also important in planning the entire project. Bennie Keel, Ed Hession, Harry Scheele, Michael Alterman, and Will Husted, all with the National Park Service staff in Atlanta, also played prominent roles. David McCullough and Judy Wood represented the Corps in the preparation of this volume and provided helpful advice.

Finally, we would like to thank our friends who were especially kind. Don Perryman loaned us useful books, and fed and nurtured us when the deadline loomed, while Dan Thalimer and Carol Thalimer provided computer help. Cary Cleaver Voigt, Artists-In-Education program director for the Georgia Council for the Arts, was an understanding sponsor during much of the manuscript preparation. King Fogle and Linda Moorer also provided useful books and suggestions. And a special nod to Ann Ritter, who unselfishly encourages other writers. Thanks also to our families and other friends, most of whom, like us, had no idea what a rich past a stretch of a river could have, and encouraged us to share the story.


Richard Keeton Sharyn Kane

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Introduction

In the following pages, you will find the story of a place and the people who lived there over the past 11,500 years. The many intricate and fascinating details were gathered by experts in an archeological and historic study with few equals in the eastern United States. The findings, however, of this scientific undertaking far surpass regional significance and have much broader importance because they chronicle human development and events significant in our national heritage.

The setting is along a 28-mile stretch of the Savannah River, extending into Elbert and Hart Counties in Georgia, and Abbeville and Anderson Counties in South Carolina. This area, encompassing 52,000 acres, was chosen for investigation by the United States Army Corps of Engineers Savannah District because it would be most affected by the Corps' construction of the Richard B. Russell Dam and Lake, named in honor of Georgia's late U.S. senator. The dam, which began operation in 1984, was built in Elbert and Abbeville Coun-

ties, about 65 miles north of Augusta, Georgia. But before construction began, archeologists, historians, architects, geologists, botanists, and other experts began studying prehistoric and historic sites within the vicinity. Their investigations probed human lifeways from the ancient PaleoIndians until modern times.

These efforts to interpret the region's past were prompted by a federal law, the Archaeological and Historic Preservation Act, and a Presidential Executive Order, which mandate study of the cultural history where federal construction projects are planned. The intent of these requirements is to preserve and interpret knowledge "for the inspiration and benefit of the people," information that otherwise might be permanently lost. There was a special urgency in the case of the Russell investigations because water backed up by the dam would eventually submerge much of the landscape. Altogether some 730 historical and prehistorical sites were located and examined.



Figure 1: The Richard B. Russell Dam, viewed from the visitor's overlook on the South Carolina side of the Savannah River, changed life along the waterway for many.

Thirty locations were chosen for more thorough research because they contained better preserved remains or more representative samples of certain time periods or cultural epochs.

The Atlanta-based Interagency Archeological Services Division of the National Park Service agreed to work with the Corps of Engineers Savannah District to oversee the massive project, called the Richard B. Russell Cultural Resource Mitigation Program. Among the two agencies' many duties was the selection of the 30 sites for more intensive study, after consultation with the Georgia and South Carolina State Historic Preservation Offices. Corps of Engineers and National Park Service employees then cooperated in writing and awarding contracts to experts to conduct the investigations. Representatives from the two agencies then supervised the subsequent scientific work in the field and follow-up laboratory research.

The Russell project serves as a model of how cooperating agencies managed one of the most complete regional investigations ever. Research spanned nearly 20 years, and hundreds of specialists from many different parts of the country were involved. Their techniques included the time-honored archeological practice of digging in the ground, as well as poring over historical documents, analyzing specimens in laboratories, and interviewing local residents. Professionals collected and interpreted data about the people who once occupied the land and the world they had inhabited, and compiled the results in more than 20 extensive reports and many other monographs that comprise the Russell Papers. These writings form an invaluable record for those scientists who in coming years will seek to build on the wealth of information already accumulated.

But the Russell Project serves a broader audience than just scientists. There is now a museum and visitor's center near the dam on

the Georgia side of the river, for example, with exhibits highlighting aspects of what was learned about earlier life. And this publication, the final step in the long journey of research and documentation, is written to explain the findings so that everyone can share the wide range of knowledge gained. Consequently, the information is condensed and presented free of many scientific and technical terms that might be unfamiliar to most readers.

Yet, no significant findings are neglected, and every effort has been made to present material accurately and to demonstrate its importance. Where appropriate, explanations are also given describing the methods used to gather and decipher data, steps often of such complexity and difficulty that they reveal the great skill and dedication researchers brought to their tasks.

Primary sources for this publication were the researchers' own accounts in the Russell Papers. These documents contain extensive discussion of techniques used and expert interpretations of what was found. David G. Anderson and J. W. Joseph later condensed the writings of the individual reports into two volumes for a more technical audience, and their work was also especially helpful.

Most references to archeological theories come from the Russell Papers and other documents listed in the bibliography, although in several instances the authors interviewed experts directly. And, because the purpose of this volume is not merely to explain what was learned about people near the Savannah River, but to present the inhabitants' experiences within the context of their times, events and findings outside Georgia and South Carolina are described to give a broader perspective.

The authors were encouraged to follow such a course, and have included information that did not appear in previous Russell Papers. But those studies, and the work they represent of so many individuals, are the foundation of the story you are about to read.

PART I

The Prehistoric People



Figure 2: Early people in the Southeastern United States sometimes engaged in a ritualistic drinking of a hot black beverage before important deliberations. They often used a large seashell as a cup.



Figure 3: Late in prehistoric times, disputes among groups led to building protective fences around communities. This one was recreated to show how tree poles were aligned in the ground.

Chapter 1: Along the River Bank

In the 1400's, about a century before the Spanish adventurer Hernando de Soto and his army hacked their way through the dense growth of Georgia and South Carolina searching for treasure, there was a prehistoric village on a terrace overlooking the Savannah River. Inhabitants of this village, who feared attack, shielded themselves from their enemies by digging a long ditch that nearly enclosed their entire settlement. In places, the ditch was almost eight feet wide and four feet deep.

As the people, using handmade tools of bone, wood, and stone, had slowly hollowed out the ditch, they loaded the dirt into baskets, which they carried back towards the village. When they were about 20 feet behind the ditch, they began forming another defense against assault—a stockade fence paralleling the ditch.

They dumped basket after basket of dirt into a long, low embankment to form the base of the fence. Then they trampled this soft earth with their feet and dug a small trench in the accumulated earth. The trench was the foundation for fence posts, which they closely aligned, creating the fort-like palisade between themselves and the dangers lurking outside.

Others who had lived on the same river terrace about 100 years earlier had felt little need for such deterrents from hostile forces. Yet, they were not completely free either. They paid tribute to a powerful leader living in a ceremonial center built around an earthen mound about seven miles away. The terrace dwellers gave part of their hard-earned food to this ceremonial chief, including the choicest parts of deer they had slain. They rendered this tribute because they thought the chief was favored by the gods and served as their intermediary with the spirits.

But the later villagers, who protected their homes with the ditch and stockade, were obligated to feed only their own people. They paid no duties to distant leaders, but kept all

their game, which they butchered on a small bit of land about 400 yards from their houses beyond a swampy marsh.

The men and boys of the community kept their hunting and fighting skills honed through athletic games performed as entertainment for the other villagers who gathered along the edges of a big plaza to watch. A favorite sport was the "chunkey" game, usually played by two people. Each contestant held a spear or long pole, which he tried to throw exactly where he thought a rolling chunkey stone tossed in front of the opponents would eventually stop. The player whose spear landed closest to the stone won. They repeated the contest many times, sharpening both their throwing and estimating abilities, important skills for hunters and warriors.

They also increased their proficiency with bows and arrows in another way. A small hill of dirt was heaped in a part of the plaza where a mighty tree post stood, towering 30 to 40 feet high. From time to time, an agile youth shinnied up the post all the way to the top to hang something small that he and his companions then used as a target for their arrows.

But hunting supplied only some of the community's food. Villagers grew one of their most important staples, corn, in the fertile land deposited over many years by the overflowing river close by. The river itself supplied more nourishment in the form of fish, while the people gathered from nearby forests the acorns and hickory nuts and other plant foods that supplemented their diet.

Important matters affecting villagers were settled in a round council house, about 50 feet wide, erected near the plaza. Here the village leader presided, with his counselors in attendance, over discussions of pressing issues, including war.

Their decision making was often accompanied by a ceremonial pouring and drinking of a powerful hot liquid called a-cee or black tea.



Figure 4: Some 500 years after prehistoric Indians occupied a village in Rucker's Bottom near the Savannah River, archeologists began excavating the site.

Drunk from a special large seashell, the beverage was extracted from holly leaves and contained potent quantities of caffeine. The men drank copiously until they vomited, which they considered beneficially purifying, giving them clear heads, hearts, and stomachs for resolving issues important to their people. Those excluded from the deliberative meetings performed other duties, such as keeping the council house clean and swept of debris or supplied with river cane, burned for light.

To sleep, the people retired to homes of varying sizes and shapes arranged around the plaza. Some dwellings were modest constructions, no wider than ten feet, while others spanned three times that much space. The shelters were built as either circles or rectangles shaped by wooden posts. For everyone, there were both winter and summer houses.

The winter shelters were snug constructions covered with woven branches and a thick insu-

lating clay for maximum warmth, while summer homes were loosely made and open to allow cooling breezes to enter.

Interspersed among the homes were storage sheds set above ground on four posts, which were greased with animal fat to thwart scavenging creatures trying to get at the provisions kept inside. Like the winter houses, a layer of clay provided an exterior protective coating over the shed walls. Inside, the vital corn harvest and other foods rested on a cane floor.

Life for the villagers was closely attuned to the changes brought by the seasons and to the river flowing steadily by them. In many ways, their lives were identical to those led by their ancestors. Mothers and fathers taught their children the same beliefs and customs they had learned from their parents, who had learned them from their parents, and so on for generations. And when death came, family members were not buried in some isolated spot rarely



Figure 5: An aerial view of the same Rucker's Bottom site shows the tremendous extent of field work accomplished by the close of examination in 1982.

visited, but beneath the floors of their homes or in earth nearby.

Then, as if carried away by a wisp of smoke, everyone was gone. No new children took up the traditions so carefully passed down over the years in this riverside setting. And not only did these people disappear, but others for miles along the waterway also vanished. When the Spanish arrived in 1540, they found only lonely miles of lush uninhabited land, all but empty of human beings.

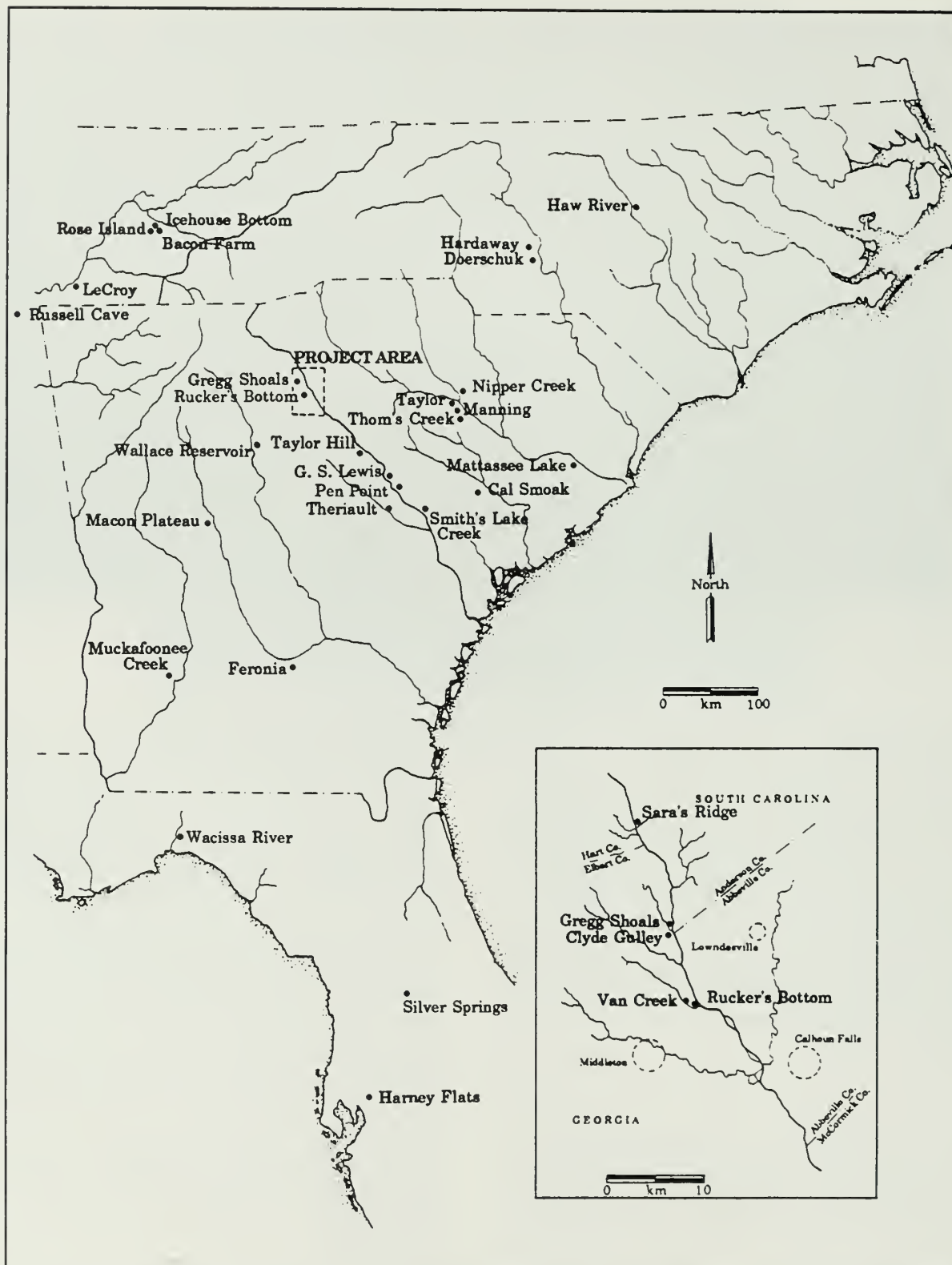
* * * * *

Five-hundred years later, as part of one of the most extensive archeological undertakings of its kind, traces of these two long-abandoned settlements emerged in a place called Rucker's

Bottom in northeast Georgia.

From analyzing fragments, some as small as pollen grains and as ephemeral as pale stains in the dirt, and by studying accounts written by the earliest European explorers, archeologists pieced together a partial portrait of what life was like for these people who had left no written records of their own.

But even with the abundance of knowledge gained in the years of investigations in the Russell Reservoir area, there are still blank areas on the canvas, still many remaining questions, questions that will keep those who study the human past occupied for many years. Among the more intriguing mysteries to be solved is why the people who once lived on this terrace overlooking the Savannah River disappeared.



Map 1: Important PaleoIndian and Early Archaic archeological sites in the Southeast are shown, including those excavated in the Russell Reservoir Project Area (insert) in Georgia and South Carolina.

Chapter 2: The First to Arrive

9500 to 8000 B.C.

The PaleoIndian Era

For two million years, the earth underwent a stark epoch geologists call the Pleistocene. This was a time when the uppermost portion of North America was covered by glaciers, thick ice sheets that shifted powerfully over the land, gouging out deep valleys and pushing huge boulders around as if they were pebbles. Near the end of this bitterly cold Ice Age, people first appeared along the Savannah River.

These earliest arrivals must have been exceptionally hardy by modern standards. Strong enough to travel great distances by foot in the harshest weather, they carried with them what little they owned. With only stones and spears for weapons, they hunted animals, often many times their own size, for food and clothing. Their shelters were probably little more than temporary, but sturdy constructions of bent saplings, poles, and animal skins. While everyone—men, women, and children—was vulnerable to the vagaries of nature, they lived in a hunter's paradise brimming with wildlife.

From where these original people came, and how, are questions more readily answered than the exact time of their arrival and what brought them. But any inquiries about the distant human past are difficult to answer because of the shortage of archeological evidence. While there are consequently many points of debate among those who study prehistory, there is general acceptance that major human evolutionary changes took place in Africa, Europe, and Asia before the first inhabitants arrived in North America. The first people on this continent, then, were not indigenous, or native to the land, but came from elsewhere. They were evolved to the point that

we would recognize them as fellow human beings, despite probable stark differences in manner.

To understand how the initial settlers came to North America, scientists look to the last of the many great glacial advances and retreats. By 70,000 years ago, the final ice drama was underway. So much water froze that sea levels sometimes dropped as much as 300 feet below those of today. As seas shrunk, land mass grew, exposing earth previously covered by water. This transformation was crucial to human occupation of the continent because a stretch of earth was uncovered for a time connecting Siberia and Alaska at the Arctic Circle. This land bridge, today submerged again under the icy waters of the Bering Strait, was then easily wide enough for travelers to cross, which is what is thought to have happened.

Perhaps these people of long ago were tracking game. Fossils show that animals of the time were the same on both the Siberian and Alaskan sides of the land bridge. But it is unlikely that we will ever know for certain what prompted this journey across the continents. There is also doubt about when the first crossing occurred. The land link was exposed twice, between 50,000 and 40,000 years ago, and again between 28,000 and 10,000 years ago. Evidence is strong for human arrival during the latter part of the second period, although various archeologists argue that entry occurred much earlier.

Their thinking is bolstered by possible artifacts, objects produced or shaped by people, discovered in Alabama, Pennsylvania, and in western states, which may indicate occupation as distant as 30,000 years ago. Also, sites

in South America, including Flea Cave in the rugged mountains of Peru, have produced evidence suggesting human life there as long as 20,000 years ago or even earlier. These findings lead some to suggest that if people had reached South America that long ago they must have been in North America even sooner. But that conclusion is not unanimous, and is unlikely to become so until further evidence is uncovered.

There are also different theories about possible routes early people may have followed into North and South America. One proposed route follows the Pacific Coast, although no proof of this has been found so far. Another theory suggests that about 12,000 years ago, people moved through Canada into what is now the United States.

Setting the stage for this important event was a climatic change. Between 14,000 and 12,000 years ago, the weather warmed slightly

and the Canadian glaciers split apart, leaving a wide, ice-free corridor through the center of western Canada, a path that led straight into the American West. Now there was a relatively easy route leading south for animals and a people archeologists call PaleoIndians. The name PaleoIndian denotes members of a cultural tradition, a designation that separates them from later prehistoric inhabitants who are identified by other cultural traditions and titles.

We can only speculate about how this early human migration occurred and whether small groups traveled simultaneously or arrived over a span of many years. For perspective about how long ago PaleoIndians ventured here, consider that the Spanish explorer Hernando de Soto reached the continent just 450 years ago.

Few traces of human life can survive the natural ravages of 12,000 years, particularly in the wet climate and acidic soils of the south-



Figure 6: A field worker scrapes dirt from an excavation unit, while another worker carefully sifts the dirt through a screen suspended from sapling poles to catch any artifacts or other small items.

eastern United States, which destroy many of the clues important to tracking the past. As a result, uncertainty and ambiguity are inevitable companions to efforts to document this long-ago period of occupation. Fortunately, however, one sign people existed usually withstands the worst circumstances—stone tools.

Using scientific techniques—including studying the stratigraphy or layering of the soil where artifacts are found—archeologists have identified a particular type of sharpened stone spearpoint as the handiwork of the early PaleoIndians. Called a Clovis point, its refinement and beauty belie the notion that the weapon was made haphazardly by unskilled hands. Indeed, the craftsmanship of Clovis points far exceeds that usually demonstrated in stoneworking in the thousands of succeeding years. A Clovis point eloquently conveys its creator's concern for symmetry and perfection as much as his need for a weapon.

While they vary in size by several inches, Clovis spearpoints share a distinct lance or laurel-leaf shape and smooth straight groove up the center. The groove, called a flute, often reaches half way to the top of the point. Experts speculate that this feature helped hunters attach the point to a wooden or bone spear shaft. Strips of animal tendons or intestines were wrapped around the bottom of the point to secure it to the spear shaft. The sharp edges at the base of the spearpoint were typically blunted to prevent them from cutting the binding. Some toolmakers even used a natural resin to glue their weapons together, as evidenced by Clovis points found with bone foreshafts in southwest Montana.

Some Clovis points have delicate parallel flaking with pronounced ridges along the sides resembling perfectly aligned ocean waves, which were painstakingly chipped out of the stones. PaleoIndians also took care choosing the raw material for their weapons. Often they used chert or flint, favored for their superior qualities for flaking. Flaking is the removal of bits of stone to form the point. Clearly, there were many intricate steps required to produce

the desired result—a precisely formed projectile as deadly as a bullet.

How did prehistoric hunters use these devices and what were their prey? Animals of the late Ice Age included species such as the wolf and grizzly bear whose descendants still exist, although in drastically reduced numbers, as well as creatures that are now extinct. The majestic woolly mammoths fall among those vanished from the earth, perhaps in part because of the PaleoIndians who hunted them.

Like the elephant, which it resembled, the mammoth dwarfed all other creatures of the time, standing up to 12 feet tall and weighing thousands of pounds. Brown, shaggy hair protected its thick hide from the cold, while a pair of sharp tusks served as formidable defenses. Other than humans, however, the mammoth had no natural enemies.

Proof that PaleoIndians hunted the mammoth is strong. Archeologists have actually found Clovis spearpoints lodged between a mammoth's rib bones. Other points were found close to fossilized mammoth skeletons in New Mexico, Arizona, Colorado, Wyoming, and Montana.

Hunting the mammoth required cunning and courage with only a stone point and spear as a weapon. If mammoths behaved similarly to their elephant counterparts, they were fiercely protective of their young. Mother elephants meet approaching danger with a terrifying charge. Stealth and planning, then, were crucial to the hunter's success, and even his own survival.

Speculation about ancient hunting techniques comes partly from studies in Africa by archeologists such as George Frison of the University of Wyoming. PaleoIndians likely did not confront an entire mammoth herd, but watched and waited until one animal strayed and became vulnerable. Preferred targets were the young, sick, and weak animals. A team of hunters cautiously approached the selected beast, staying downwind of their prey and the herd until they were close enough to throw or jam their spears into the mammoth's belly.

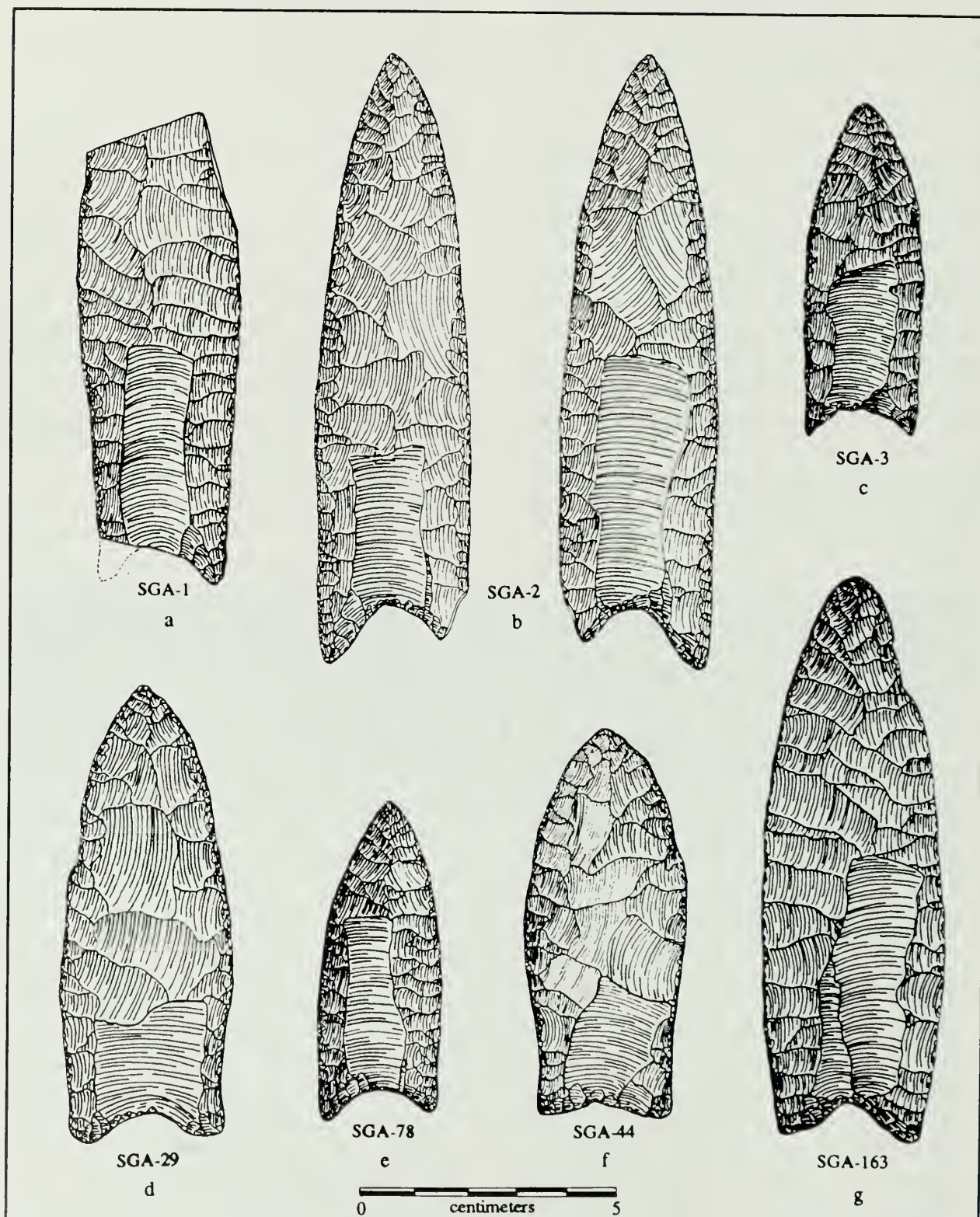


Figure 7: Drawings of Clovis points from the Southeast show marks from shaping and sharpening. The black chert point from the Russell investigations is depicted in the upper right corner.

But hitting their target far from assured success. A Clovis point was sharp enough to inflict a fatal wound, but death of the giant creatures was rarely immediate. Repeated spear jabs were necessary at perilously close range, and there were always the possibilities that the wounded mammoth could thrash violently and crush the hunters or charge them with a speed remarkable for its enormity. Or, if it was still strong enough to flee, hunters had either to abandon the pursuit or track the animal for many hours, even days, until it weakened enough for them to inflict further wounds. But their dangerous labors, if successful, were rewarded with enough meat to feed many people.

Where their distinctive spearpoints are found tells us not only what PaleoIndians hunted, but also where they explored, a topic studied by archeologist David Anderson, who was closely involved with the Russell Reservoir research. His theory is that migrating PaleoIndians encountered four major river systems after they reached the northern borders of the western United States. The rivers—the Missouri, Platte, Arkansas, and Red—all flow generally towards the east and south into the Mississippi River.

People have always tended to follow rivers as a source of drinking water and for other logical reasons—animals searching for water beat down paths along the rivers, making human travel easier and providing potential game; and the rivers themselves wear away valleys through rugged terrain, further easing the way for people. Therefore, Anderson theorizes that PaleoIndians probably followed the Missouri, Platte, Arkansas, or Red Rivers into the center of the country, and that eventually some found their way across the Mississippi River into the eastern United States.

After crossing the Mississippi, PaleoIndians likely slowed their journey. Some may have stopped altogether, settling in Alabama, Tennessee, Kentucky, and Ohio, where the most Clovis points have been discovered in the eastern United States. The travelers found

ample resources in those places, including the preferred rocks for their spearpoints. Many may have stayed in these staging areas for a number of years, allowing them to bear and raise children without the stress of constant travel, as well as to learn how to exploit the bounties of a new land.

Observations of contemporary preliterate people suggest that PaleoIndians probably clustered in small groups (called bands) of no more than 150 people in their beginning days in North America. These groups were probably extended families. Most major decisions were likely made by the dominant males, usually the most skilled hunters, although all adults, males and females, probably had fairly equal say in matters.

Gradually, between 11,200 and 11,000 years ago, as the population grew in the Ohio River Valley and the mid-South, new groups split off and moved to other areas. There is also evidence suggesting that even before then, PaleoIndians may have explored widely in eastern North America. Artifacts found at Little Salt Springs on the Gulf of Mexico coast of southern Florida, for example, date to 12,000 years ago.

Certainly by 11,000 years ago, PaleoIndians had covered considerable ground and also had begun to settle in favored spots throughout much of what is now the eastern United States. We know this because of the spearpoints they left behind.

The absence of spearpoints in some regions indicates areas PaleoIndians avoided. They seemed generally wary of high, rugged mountains and places without the flint or chert they used for weapons.

Whatever their exact route was, PaleoIndians eventually made their way to the land along the Savannah River and left their stone calling cards behind. Altogether, some 50 Clovis spearpoints have been found along the approximately 250 miles of the river's drainage system in Georgia and South Carolina. Only three of the points were discovered during the Russell investigations, despite

Making a Spearpoint

Once he chose a rock to make into a spearpoint, the prehistoric hunter used another rock called a hammerstone to help in the initial shaping. Archeologist Tom Gresham duplicates the steps in the photographs to the right. The hammerstone, a round piece of granite or other hard mineral that fit easily into the hand, served as his hammer, shown in Figure 8 (a). With pounding strokes, he reduced the spearpoint rock until the rough outer edges and impurities were detached. What was left, called the core, was a manageable chunk that could be carried back to camp for the next steps.

There he used the hammerstone again or a wooden or bone baton to chip away more until the rock was roughly the size of a spearpoint (b). Called a preform, this piece now became the focus of an intricate, and to the unpracticed or careless, hazardous refinement. Using the sharp tip of a deer antler, he forced away many small, thin pieces called flakes, gradually sculpting the rock (c). Because the spearpoint was small, only a few inches at most, and sharp as glass, cut fingers could easily result during this flaking.

Hunters sometimes used fire to temper chert and to help form it into spearpoints. Archeologists think the process involved burying the rock, then building a fire on top, which often changed the chert's color. The heat also made the chert more pliable and susceptible to the final delicate flaking. Satisfied with a spearpoint's shape and sharpness, the hunter added it to his arsenal.

(a)



(b)



(c)



widespread archeological excavations. And none of the Clovis points were located near tools or soil stains associated with the PaleoIndian period, suggesting the area was only minimally occupied. There were, however, major PaleoIndian population concentrations in South Carolina, northern Florida, and the ridge and valley section of northwest Georgia and northern Alabama where many more points were found.

The hunters who left the three points behind at different locations in the Russell area were probably searching for game or exploring. Perhaps they dropped the weapons as they moved quickly after animals or lost them when they stopped to rest. Nothing, however, remains to suggest that they lingered for long. Yet even these few remnants fill in more of the puzzle of their lives.

Seeing the early PaleoIndians' handiwork cannot help but stir the imagination about these ancient people. The Clovis point from Rucker's Bottom, which is displayed in the Russell Dam visitor's center in Elbert County, Georgia, is so delicately sculpted in glossy black chert that it suggests the skill of an accomplished artist concerned with aesthetics as much as function. Less than two inches long, the point has finely chipped grooves along its sides that are unquestionably the result of nimble fingers and a demanding eye.

The three Clovis points found in the reservoir area also provide other insights about their makers. The chert they used came from at least 100 miles away from where the points were discovered. One point was made from chalky-looking chert found in Allendale County, South Carolina, midway between Augusta and Savannah, Georgia. The blackish-colored rock for the other two points came from near Chattanooga, Tennessee.

Whether the PaleoIndians traded with others for these spearpoints or simply covered all those miles on foot themselves is open to debate. However, in a study of artifacts discovered near the Savannah River, avocational archeologist Tommy Charles found that some

of the earliest hunters did carry or exchange spearpoints up to 150 miles from a rock source.

Possibly only one band of between 50 and 150 early PaleoIndians roamed the approximately 250-mile-length of the Savannah River. They probably also hunted in territory that included several adjacent river systems. According to David Anderson, a similar pattern possibly occurred throughout much of the East, with a small band at first using the land around several entire rivers to hunt. Then, as population grew and new bands formed and moved away, every group reduced its territory to only one major river system.

Exactly which animals PaleoIndians pursued along the Savannah River is uncertain because the elements destroyed Ice Age faunal remains. However, Clovis points are linked with the prehistoric *bison antiquus* and the giant land tortoise in Florida. And because the woolly mammoth, ground sloth, and other now-extinct creatures lived in the Southeast and PaleoIndians hunted these animals in the West, most experts assume that they killed them in the South as well.

There is, however, a growing number who think that southeastern PaleoIndians were not overly dependent on large animals because of the many other foods available to them in the ecologically-rich area. They could have eaten smaller animals, as well as seeds, berries, nuts, and roots. Again, observing preliterate people today, authorities note that they neglect few edible resources.

Like so many questions about these earliest prehistoric people, the answer to just how nomadic they were is elusive. They were constant wanderers, tracking game and other resources and rarely settling anywhere for more than a day or two, according to one theory. Another view sees PaleoIndians as true nomads only during their earliest incursion into the eastern United States. Later, according to this theory, they became more settled.

William Gardner favors this latter idea. His studies in Virginia show that PaleoIndians

established basecamps, where they lived at least part of the year, near sources of rock preferred for their weapons. Gardner thinks other bands along the Atlantic coast behaved similarly, revisiting year after year places near sources of chert, called outcrops. Outcrops are exposures of rock above ground where hunters obtained stone for tools.

PaleoIndians used a range of camps or sites, according to this theory. Typically, at the rock source, they quarried the chert, chipping out large chunks. Then they carried the chunks to another site where they worked away more of the rock, reducing it to pieces small enough to take to their basecamps. At the basecamp, they finished the task of forming spearpoints and other tools. They also used still more sites as brief camps on hunting trips.

Research in Missouri and Arkansas by Phyllis Morse and Dan Morse supports the notion that PaleoIndians there maintained year-round basecamps by around 10,500 to 10,000 years ago. These camps tended to be established in the center of a band's territory and the PaleoIndians also set aside special areas as cemeteries. Hunters, when away from the basecamp, probably set up short-term camps in outlying areas, and there were likely other sites where people collected and processed plant food.

But another archeologist, Michael Schiffer, looking at some of the same data examined by the Morses, argues against year-round settlements. He thinks PaleoIndians in Arkansas and Missouri were much more mobile and may have alternated between summer and winter basecamps. He also thinks they sometimes traveled to short-term camps for hunting and gathering plant food.

Despite such differences of opinion, many archeologists agree that, at least by 10,500 years ago, PaleoIndians had chosen to live in basecamps for at least part of the year. They still may have moved about extensively searching for food, but they eventually returned to places that could be called home.

We also know that their numbers steadily

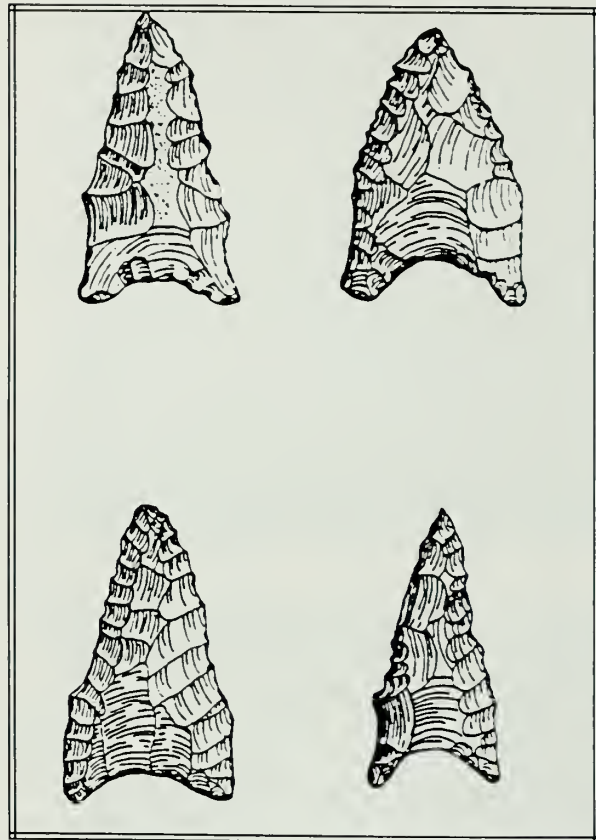


Figure 9: Dalton spearpoints, which came after the Clovis in the late PaleoIndian years, typically have distinctly flared ear-shaped corners at the base. Many were resharpened and used as knives.

grew, another fact gleaned from their stone weapons. While only three Clovis spearpoints from the Early PaleoIndian period of 11,500 to 10,500 years ago were found in the Russell studies, 14 spearpoints from the Late PaleoIndian period of 10,500 to 10,000 years ago were found. These more recent artifacts, called Dalton spearpoints, tend to be smaller than Clovis points and are often distinguished by pronounced flared ears at the corners of their bases.

The change in points was gradual. Clovis points by the end of the early period began to show slight variations from one region to another, indicating that different traditions were developing. There is a design similarity between Clovis and Dalton points. The Daltons show a thinning at the base, not unlike the beginnings of a flute, supporting the idea

that descendants of the earliest arrivals made the later points, not some new group that migrated into North America.

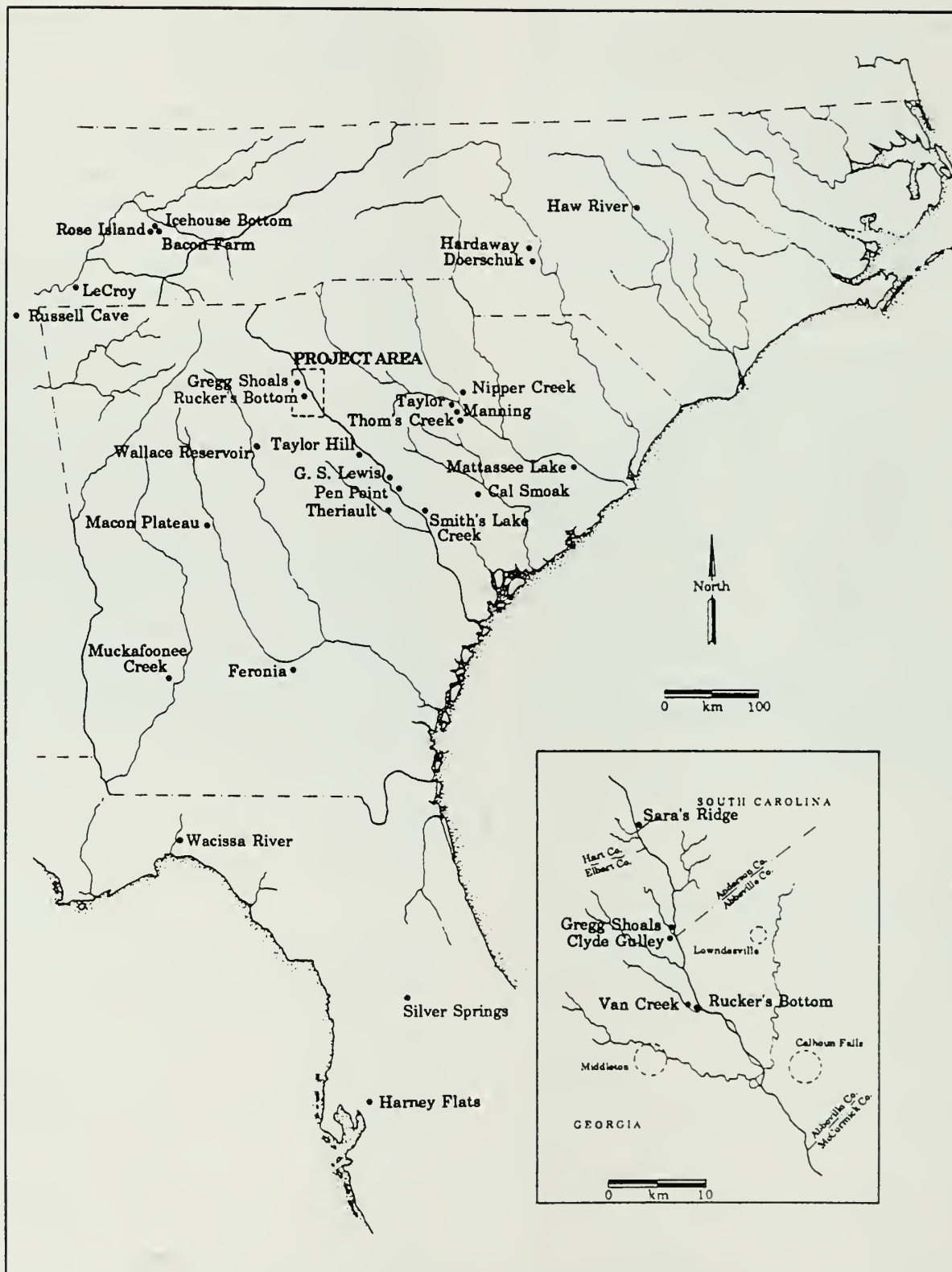
Why did PaleoIndians alter a point style that had served their predecessors so well? Most likely because the world around them was changing. With the decline and ultimate disappearance of huge animals like the mammoth, hunters began to pursue smaller game more often. Consequently, smaller spearpoints resulted.

There were also other changes—the weather was warming, leading to different vegetation. Somehow, people adapted and continued to grow in population, their increasing numbers documented by the dramatic rise in the quantity of their artifacts found at various locations.

By the end of the PaleoIndian era 10,000 years ago, spearpoints were serrated with small, sharp teeth along the edges. These serrations are important because they show that hunters had learned how to cut more efficiently when they used the points as knives. Also, they had begun to resharpen and reuse their weapons.

Archeologist Lisa O'Steen has documented other changes in her study of an area along the Oconee River in Georgia near the Russell Reservoir area. She found that by 10,500 years ago, PaleoIndians camped and hunted in the river floodplains as their ancestors did, but they also began to use the land in between rivers, called the uplands, more often.

PaleoIndians also eventually made their spearpoints from more readily available rocks, a finding substantiated by the Dalton points uncovered in the Russell studies. Of 14 Dalton points found during the studies, 12 were made from quartz that could be found nearby; the other two were made of chert from some distance away. The change is significant because making their weapons mostly from nearby materials suggests that late PaleoIndians probably lived at least part of the year in the Russell Reservoir area. They were not just passing quickly through as the earliest visitors are thought to have done. In other words, the people who made Dalton spearpoints were the first to make the upper Savannah River area their home.



Map 2: Important Early Archaic sites in the Southeast include Gregg Shoals and Rucker's Bottom in Georgia (insert), which were excavated in the Russell Project Area.

Chapter 3: A Break with the Past

8000 to 6000 B.C.

The Early Archaic Era

Changes in prehistoric human lifeways occurred slowly, over hundreds and even thousands of years, as early people followed closely in their ancestors' footsteps with only slight variations. Even when they chose different paths, the departures were often so gradual that they would be imperceptible to most observers. Only the skilled eye of a scientist could detect many of the subtle early signs of altered habits. Contrasted with the lightning-quick progress of the space age, this ancient pace of change seems excruciatingly slow.

But consider how few early peoples' needs were and how adequately their world satisfied those needs and the continuation of time-honored practices becomes easier to understand. There was little impetus to change a way of life that worked successfully for generations. When prehistoric residents did shift behavior,

often they were responding to changes in their environment.

The world the residents of the Savannah River valley knew in the next cultural tradition, the Early Archaic period of 8000 to 6000 B.C., was both different and similar to the one found by PaleoIndians. Their lives were also both changed and alike.

The river valley these people knew had formed slowly over tens of thousands of years as the earth's crust shifted and the river steadily carved a deep path by wearing away metamorphic and igneous rocks. Igneous rocks formed from cooling lava from the earth's hot core, while metamorphic rocks developed from igneous or sedimentary rocks transformed under the tremendous pressures and heat of the dynamic earth. Sedimentary rocks resulted from the sediments deposited slowly



Figure 10: The Savannah River and its tributaries follow similar paths to those 10,000 years ago. Scientists studied the environment of the past to understand its human impact.



Figure 11: A field worker collects artifacts from the surface before digging begins. She uses a meter frame in this instance to organize the search.

by ancient seas or rivers.

As it forced a course with unrelenting assault on the rocks, the Savannah River wound steadily through the bottom of a bowl-shaped valley. The floodplain—the relatively flat area at the bottom of the bowl where the river dropped sediments at flood stage—was not especially wide compared to neighboring rivers' floodplains, but did extend as much as a half mile from one side to the other.

The river at normal flow was also fairly broad, ranging up to 400 feet across. Valley walls cradling the river were steep, up to 400 feet above the water in spots, but mostly less than 200 feet high, which was still a formidable descent to the river.

A rolling landscape of brownish red soils, called the uplands, stretched above the river valley and the valleys of the larger tributaries. These undulating expanses of land, dotted with

areas of level ground, appear today much the same as when the early residents saw them. Ridges, consisting of long, fairly flat summits atop the many upland hills, were favored camp sites during the Early Archaic period, along with high ground adjacent to rivers.

Noticeably different in Early Archaic times was the climate, grown warmer and wetter than in early PaleoIndian days. Changing vegetation resulted, with a thick forest sprouting in the uplands where before patches of woods were separated by broad, open fields of herbs and shrubs. Herbs had thrived before because of the cooler, drier conditions, but as the air warmed and the rains increased, first pine colonized the formerly open areas, and then oaks supplanted the pines. Herbs and shrubs became only minor components in the landscape. Oaks now dominated, but gum, chestnut, beech, and pine trees also grew.

In the river valley, the forest was also in flux. Spruce, fir, hemlock, and pine trees disappeared, replaced by oak, gum, hickory, and other deciduous trees that seasonally lose their leaves. The spruce and fir were among the last lingering reminders of the cold days of the Ice Age when northern evergreens flourished in the southern Piedmont. We know of their former existence from tiny, fossilized grains of pollen discovered in the soils of the Russell Reservoir area by Mark Sheehan and other scientists.

During the Early Archaic era, the Savannah River was swifter and prone to more snaking bends than in modern times. The waterway maintained the same general direction as today, but sometimes migrated into adjacent channels, producing changes in the landscape. As the Savannah flowed, it eroded soft earth in its path and added platforms of land called levees along its banks. After floods when the water retreated, the river dropped sediments of sand and silt on these levees, so that eventually some stood ten to 13 feet above the river at low water. When the river's course shifted, new levees formed. The older levees, sometimes also called terraces, continued to stand

Secrets of the Soil

Understanding what an environment was once like is important because of its role in shaping human activities. To learn about the world near the Savannah River years ago, geologists and pedologists examined soils—charting color, texture, depth and composition, which reflect how soils were deposited, the vegetation that once grew in them, and previous climates.

Soils develop from a combination of minerals and organic material called humus, derived from decayed plants and animals. A scientist finds clues in the humus to the plants that once grew there. Rocks also contribute to soil type, as do temperature and the amount of rain. Analyzing soils can reveal how they were deposited, whether they were whipped by wind, swept into place by a flood, or eroded from the top of a hill. Rocks and soils can also divulge where ancient rivers ran, the breadth of flood plains, and the height of valley walls. For example, very coarse sediments high above an old river bed suggest strong floods.

A soil's chemical makeup is also important. Acidic dirt may result from high humidity, although other causes must be considered, such as chemicals in nearby bedrock. Color is another factor. A pale-green or dark-gray soil could suggest that the iron content was reduced by plant residues.

Paleobotanists learn about past environments by examining ancient seeds and microscopic grains of pollen, comparing them with contemporary examples for identifications. Spores from nonflowering plants are similarly identified. By learning the amount of a particular plant's remains compared to those from all plants, scientists can determine how the area once looked—whether there was a lake, fields, or mountains. And by knowing what grew, they deduce what the climate was like. They also compare wild plant remains to those of cultivated plants, gaining insight about the human diet.

Seeds and pollen are collected from peat bogs and ancient lakes, or extracted from dirt during archeological excavations. The dirt is sifted through a fine screen into a water tank in a process called flotation. Dirt sinks to the bottom, while seeds and other particles float. The seeds are skimmed away for study. A more sophisticated froth flotation uses a motor on the tank bottom to blow air into the water, similar to a fish tank. A collector agent, like kerosene, is added to the water. When the sifted dirt drops into the water and sinks, seeds, pollen, and other tiny organic particles attach to the rising air bubbles, aided by the kerosene. When the organic materials reach the water's surface, they float through a spout into a sieve. The particles are dried, then analyzed in a laboratory.

above the surrounding floodplain. The terraces and levees, along with islands in the river, provided people with favored locations for camps and villages throughout prehistory.

There was no regularity to this process of levee building. Sometimes the rain-swollen river swept tons of sediments along, resulting in heavy deposits. Other times, only a fraction of an inch of sediment was left. But it was during these low-deposition periods that soils began to form from old sediments left exposed to the coalescing powers of sun, wind, and rain.

Ironically, the river deposited the most materials after droughts. Dying vegetation in

parched uplands could no longer hold the soil, so that erosion occurred when heavy rains finally fell. The sudden rush of water skimmed off dirt and carried it hurtling towards the river, increasing flooding and sedimentation. Conversely, during wet periods, upland vegetation flourished, knitting the soil together, preventing heavy erosion, and leaving the river with little to deposit.

Geologist Antonio Segovia learned from his study of the area that droughts occurred as often as a thousand years or more apart and lasted as long as 200 to 500 years. Droughts then, as now, says the geologist, were harsh for all living things. River tributaries and



Figure 12: Soil samples are taken from different layers of an excavation for laboratory analysis to learn about earlier environments. Samples are placed in labeled containers for identification.

nearby springs evaporated, killing plant life and smoothing the way for lightning-induced forest fires, which further denuded the landscape. Wildlife suffered, and at times perished in the hostile conditions. When rainfall returned to normal levels, nature's recovery was slow. The hardy pine, with its fire-resistant seeds and ability to grow even where top soil rich in minerals was scoured away, was the first tree to reappear in open areas. Oaks and other hardwoods slowly followed and resumed the task of holding soils in place so that fertility could revive.

While some archeologists don't think prehistoric droughts in the Southeast were nearly as fierce as those described by Segovia, most assume that environmental change often kindled resourcefulness among prehistoric people who learned new ways to cope. There is no sign of significant drought at the start of the Early Archaic period, but there were major differences for these descendants of PaleoIndians. Gone forever were the woolly mammoth

and giant ground sloth that had provided food and clothing for the hunters and their families. By 10,000 years ago, many species of large mammals that had once lived on the continent were extinct. Consequently, hunters were forced to pursue smaller animals more often and a greater variety of them to satisfy their needs.

People scattered across the land adapted in various ways to the changing world. There were enough similarities in their responses, however, to mark the beginning of the Archaic cultural tradition, which spread widely from the East Coast to the Great Plains by 8000 B.C. Where the tradition began is uncertain, and it was not embraced everywhere, with a PaleoIndian lifestyle continuing for some time in parts of the West. Archeologists, for example, uncovered a PaleoIndian site in Colorado dated to 6500 B.C., where hunters had forced a stampede of bison over a cliff and into a seven-foot gully. Hundreds of animals were crushed to death in the thunderous upheaval as

they fell on top of each other, providing the people with enough food for a month or more.

Early Archaic people along the Savannah River did not likely experience anything quite so terrifyingly dramatic in their hunting. At the start of the era, there were probably no more than 150 inhabitants in all, and they had the entire river valley, more than 250 miles long, and the surrounding uplands mostly to themselves.

They were nomads, moving throughout much of the year, but not wandering aimlessly. Their traveling had purpose and pattern. They preferred the Russell Reservoir area in summer and fall, year after year, sometimes using the same campsites repeatedly.

Contrasted to PaleoIndians, there were now two distinct patterns to these later peoples' settling, not just one. The first, considered by many to be a year-round custom for people in Late PaleoIndian times, occurred in the winter. That's when Early Archaic people set up basecamps about 50 miles south of the reservoir in the inner coastal plain. One such site,

called G. S. Lewis, in honor of an avocational archeologist, was located on what is now the grounds of the Savannah River Site in western South Carolina. From there, Early Archaic hunters might venture out, perhaps for several days at a time, to look for game, while women and children remained at the basecamp all winter.

The second pattern began when warm weather arrived, signalling greater mobility for everyone. Men, women, and children moved up and down the river, towards the coast in early spring, then into the rolling hills of the Piedmont in late spring. Sometimes they camped in the uplands, other times on the terraces and levees of the Savannah River valley. They particularly favored raised land sandwiched between junctures of tributary streams and the river.

The length of time these groups spent camped at a particular spot varied and could last up to several weeks. Hunters might leave their campsite briefly, and women might hike short distances away to collect hickory nuts

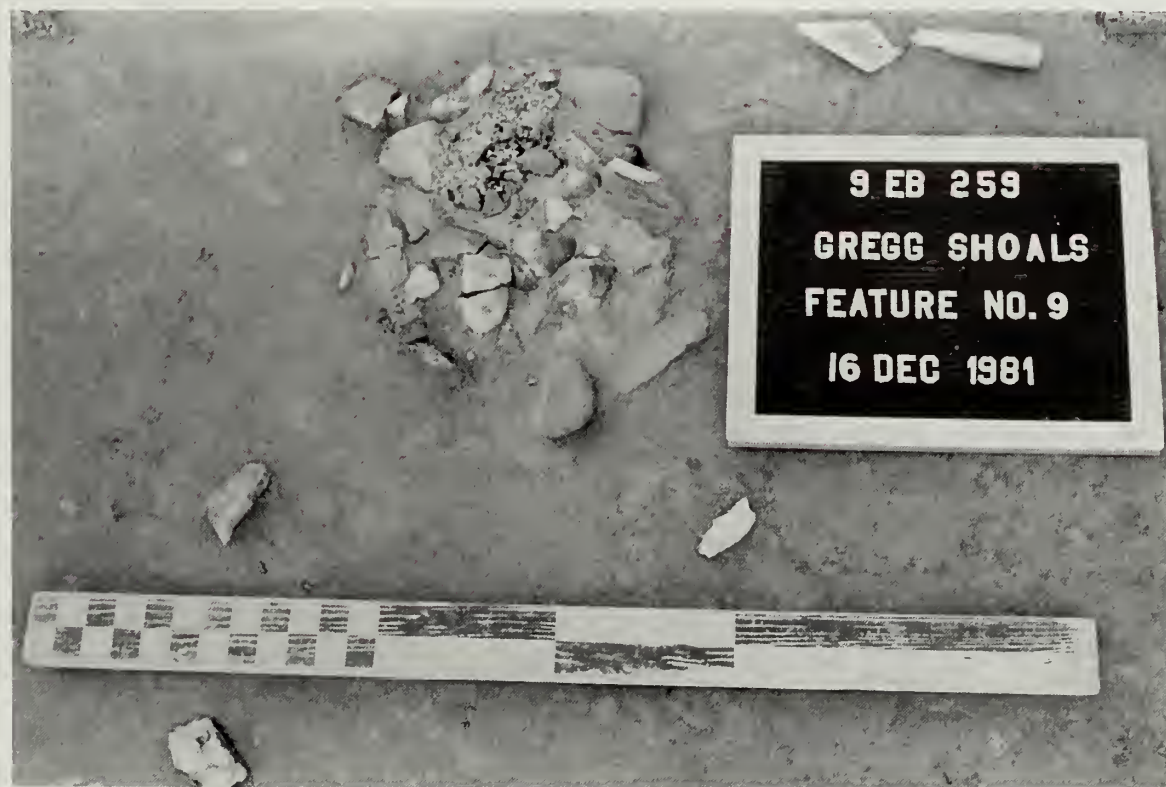


Figure 13: A rock cluster from the Gregg Shoals site is possibly the remnant of an Early Archaic era hearth.

and other plant foods, but everyone returned at night. During the day, people who left to seek food rarely traveled more than eight miles away from where the band was gathered. Whenever game became scarce, they all moved on to find another spot for setting up camp.

This view of Early Archaic life, developed by David Anderson and Glen Hanson, was based directly on information gathered in the Russell Reservoir studies, as well as other research. It counters earlier ideas that people of this era were relatively sedentary.

participated in a number of activities. But evidence left over from these activities and traces of their shelters are rare in the eastern United States because of the thousands of years gone by since then and because of an environment hostile to preservation. We know that the focal point of their camps was the fire, encircled by stacked granite or quartz rocks. Heat from the fire, used for cooking and warmth, sometimes cracked the stones. Impervious to time, however, the hearths remained undisturbed for 10,000 years just as they were built. Nature played a role in sus-

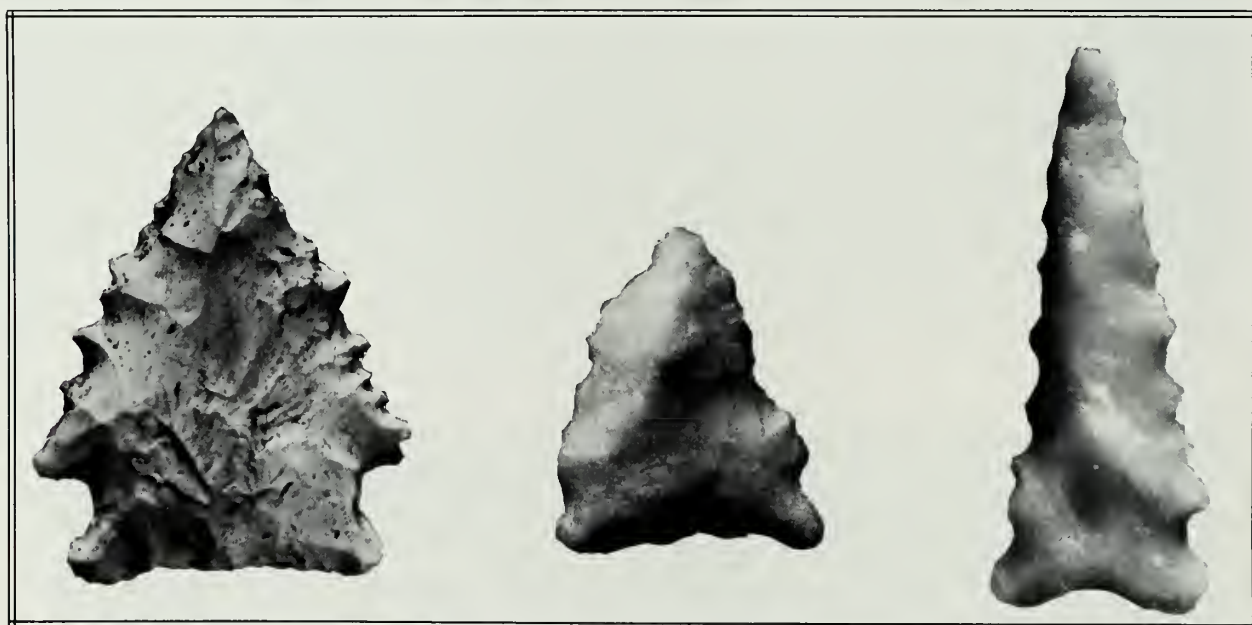


Figure 14: Hunters tied the Palmer points to spear foreshafts by looping binding around the two bottom notches.

Other researchers' findings elsewhere helped inspire this theory. Working along the Haw River in middle North Carolina, for example, Stephen Claggett and John Cable found that Early Archaic people there also changed camps frequently. The two archeologists also discovered that the tendency to move the entire family became more prevalent over time as the centuries passed and the Early Archaic period drew to a close.

Early Archaic people undoubtedly built sturdy shelters at their winter base camps, and at both their winter and summer camps, they

pending them in time by gradually burying the stones with dirt, which researchers carefully removed centuries later in their probe for just such remnants of prehistoric life.

Hunting and gathering food continued to preoccupy human energies in the Early Archaic years, as well as preparing tools for tasks associated with subsistence. People could rely only on themselves and their own resourcefulness to make weapons and implements that would ensure their survival. Like the hearths they left behind, their tools, uncovered in the soil, add more details to what we know of



Figure 15: Archeologists rigged a boom with tubs at Gregg Shoals to lift dirt from the deep excavation.

their lives. Choosing the best raw materials for tools was the crucial first step.

Early Archaic people most preferred quartz, especially vein quartz. More than half the artifacts discovered at the largest Early Archaic site found in the reservoir, Rucker's Bottom, were made from this hard rock. Vein quartz is abundant in the Piedmont in soft shades of rose, grey, and yellowish brown, but the toolmakers liked best the white, translucent variety known as cold cream jar or milk glass quartz. Perhaps they preferred the milky quartz because of its pleasing appearance. Also favored, but much rarer was crystal quartz. Resembling glass, and at times almost transparent, tools of crystal quartz sparkle in sunlight like jewelry.

But beauty alone could not have determined their choices. Hunters learned that the quality of quartz varieties differed substantially, and they were able to recognize which ones contained the smaller crystals that made the rock easier to chip into pieces. They found quartz mostly in rocks along the ground, in cobbles smoothed by pounding by rivers and streams,

and in veins a few inches thick to several feet wide that appeared as outcrops. Superior resistance to weathering compared to other minerals results in quartz appearing as an outcrop.

For about a century at the beginning of the era, people continued to make the Dalton spearpoints which first appeared in the Late PaleoIndian period. But for most of the 2,000 years of their era, Early Archaic people made new types of spearpoints with corner or side notches. Called Kirk and Palmer points, these projectiles have two indentions near the bases, one on each side. These small grooves held the binding in place that attached the points to the spear shafts. Sometimes the base below the notches formed a square stem, but not usually. Many of these points were shaped like miniature Christmas trees.

Frequent targets for these spearpoints were white-tailed deer, valued not only for their flesh, but also for their hides and antlers. Hunters also pursued raccoons, rabbits, opossums, squirrels, beavers, muskrats, and turkeys. Sometimes shorter handles were attached to the spearpoints so they could be used as



Figure 16: A graver.

knives or saws, and small serrations were chipped into the edges of the points to ease cutting.

While shapes varied somewhat, similar points to the Kirk and Palmer were used throughout the eastern United States, as far north as New England, indicating there was interaction among people from different regions.

Insight into ancient manufacturing is also gained from the refuse left where the spearpoints were made. For example, when a hunter reduced a stone with blows, he knocked off progressively smaller flakes. Larger, broader flakes suggest the early stages of spearpoint making, while small, thin, and flat flakes came from the final steps, or from later resharpening.

Assuming no trade occurred with others, the people living part of the year along the upper Savannah River traveled as much as 180 miles to get the rock for some of their spearpoints, making the weapons worth saving and resharpening. Nearly 20 percent of the Early Archaic chipped stone tools at the Rucker's Bottom site were made from rocks mined some distance away. Easily-worked chert from the Coastal Plain was the most popular of these rocks. Quartz, on the other hand, was so plentiful that hunters did not resharpen quartz spearpoints as often as those made from chert. Often they just discarded quartz spearpoints and made new ones.

If they were not especially prone to recycle

their quartz weapons, toolmakers were conscious of using by-products of spearpoint production. They recovered some flakes fallen to the ground, sharpened them, and used them as other tools. The most important of this category was the scraper, which they used to peel away meat and hair from animal hides. They wore the hides as garments or stretched them over bent saplings to create shelter.

A few scrapers were meticulously honed to a razor edge and attached to handles. But not many of these more formal versions were found, another sign that Early Archaic people rarely stayed in one place in the reservoir area for long. Rather, they made many scrapers quickly, off-handedly, used them, and then tossed them away.

A circular flake called a graver, with a small sharp projection, was probably used to punch holes in hides so they could be tied together. Another common tool was the *pieces esquilles*—a square or rectangular flake used as a wedge.

These stone implements were only part of a hunter's tool kit. There were also many other objects made of bone, wood, and fiber, which deteriorated over time, and so were not uncovered in excavations. Some of the stone

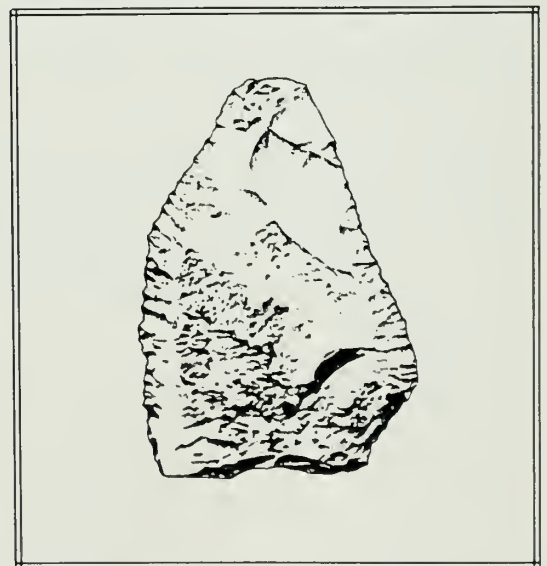


Figure 17: Hunters likely used scrapers to remove flesh and hair from animal hides.

Peeling Back the Layers

Over time, soils and the residues of human existence are buried, leaving a map, of sorts, for archeologists to follow. A man builds a house, for example, that one day burns, then collapses. Water from rain or flooding rivers washes dirt over the debris, gradually burying all evidence of the house. Wind pushes more dirt on top, and, as centuries pass, a layer cake of different dirt develops on the spot. The deeper one digs, theoretically, the older the layers are.

Archeologists call such layers strata, and identify them by color, thickness, composition, texture, and by stains and artifacts from human activity. Ideally, the layers are easily distinguished from one another, and appear in sequence from the most recent on top to the oldest at the bottom. In reality, however, the sequence is often disturbed by erosion, earthquakes, frigid temperatures, root growth, toppled trees, and burrowing animals. People, by digging graves, pits, and trenches, and through plowing, also churn and shift the layers. Artifacts, like layers, can also become dislodged from their original placement because of burrowing animals, decaying plant roots, or human digging.

These disturbances complicate the science of stratigraphy, charting soil layers and interpreting what those layers mean. Stratigraphy is a relative dating technique, allowing archeologists to compare time periods. Relative dating methods supplement absolute dating methods such as carbon 14 testing. Unfortunately, however, understanding soil layers is rarely easy because layers are not only often jumbled, they are also often so similar that they are nearly indistinguishable, requiring careful observation and judgment. Occasionally, archeologists do find in the Southeast an undisturbed, stratified site with many artifacts. Gregg Shoals, uncovered during the Russell studies, was such a place. The excavation at the north Georgia site was exceptionally deep, eventually reaching 14 feet below ground, an unexpected challenge. Special equipment was called for and designed by archeologist James Michie. He devised a boom equipped with a hand-turned winch to help speed the digging. Platforms and ladders gave the crew safe access down below.

tools, like the *pieces esquilles* and gravers, were used to make wooden implements such as digging sticks and spear shafts.

Perhaps the most likely tool to be overlooked today is the pitted rock because it so resembles an ordinary stone. But close examination reveals the small pits—usually found in the center of quartz cobbles or granite chunks—which were formed when prehistoric people pounded the rocks with a hammerstone (a hard rock used as a hammer). Stoneworkers may have used the pitted rocks as platforms or anvils upon which they made other tools. The pits were also ideal for holding acorns or hickory nuts so that they could be cracked with a hammerstone. Abrasions are visible on both pitted rocks and hammerstones, attesting to their uses.

Wielding implements as rudimentary as the hammerstone did not preclude prehistoric people from developing intricate, high quality tools. Ann Tippitt and William Marquardt discovered that Early Archaic toolmakers at

the Gregg Shoals site used an advanced technique that did not show up again along the same section of the river until several thousand years later. The method involved shattering crystal quartz rock on an anvil stone, then shaping the fragments to produce extremely sharp blades which were quite small. These tiny blades were probably lodged between split sticks, then used in delicate cutting tasks.

There were also other signs that Early Archaic people were fairly sophisticated. Life spans were short—a man and woman were elderly if they lived to be 40. The reproductive period was therefore comparatively brief and left little time for the prolonged adolescences and drawn-out courtships of today. The drive to find partners, however, was somewhat hindered by the lack of choices in a relatively sparse population. Too, many hard miles of walking, shadowed by all the dangers of the wilderness, separated prospective young mates from different bands. The solution may have been pre-arranged gatherings, festive occasions

where many people from great distances congregated to celebrate new unions and to exchange information.

Similar occasions took place throughout the eastern United States, documented by the large accumulations of stone tools and spearpoints found at select locations.

Often, the meetings took place on high ground that loomed above everything else nearby. Eagle Hill at Fort Polk in west-central Louisiana was one such site. Easily visible for miles, Eagle Hill stands between three major rivers—the Sabine, Calcasieu, and Red—all likely homes to various bands.

For people living along the Savannah River, a preferred spot for the congregations



Figure 18: The bifurcate spearpoint base is divided in two parts. The point appeared at the close of the Early Archaic years.

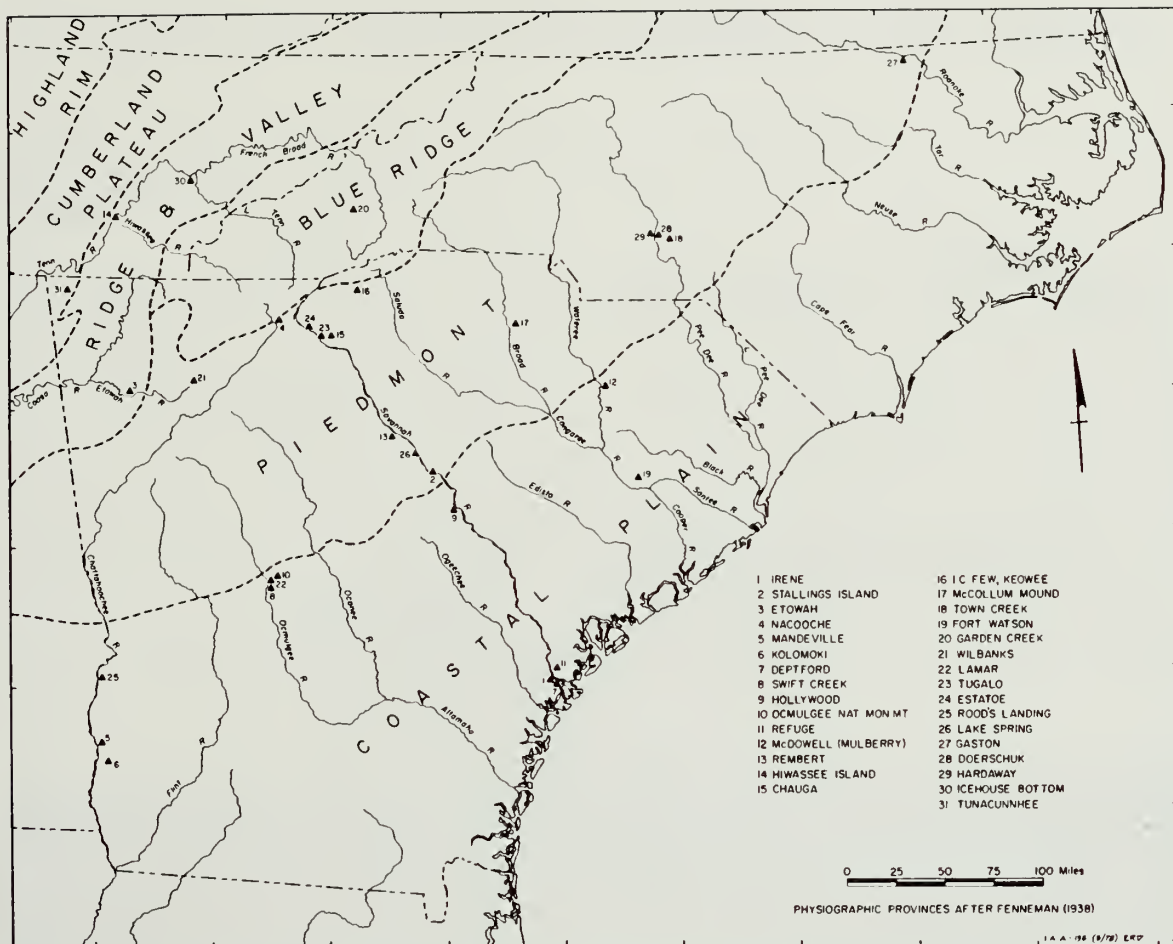
was along the fall line, the geologic boundary between the rolling Piedmont and the Coastal Plain. The fall line almost slices the two states in half.

Archeologists have identified one potential reason why this boundary of demarcation was favored. People traveling from the coast inland to the Piedmont saw rocks and shallows in the major rivers for the first time at the fall line. Here was the first place where they could ford wide rivers like the Savannah on foot fairly easily and without great risk.

Those living part of the year in the reservoir area probably made the journey to the fall line in late autumn to meet with others who spent most of the year along other major rivers in Georgia and South Carolina. Archeologists David Anderson and Glen Hanson think that bands from as far away as the Ocmulgee River in central Georgia and the Neuse River in eastern North Carolina may have participated in this particular mating network.



Figure 19: Rucker's Bottom was one of the largest Early Archaic excavations ever in the Southeast. Prehistoric people favored the spot and surrounding land during many eras.



Map 3: The fall line, marked by dashes between the Piedmont and Coastal Plain, divides Georgia and South Carolina. Early Archaic people are thought to have met there for periodic gatherings.

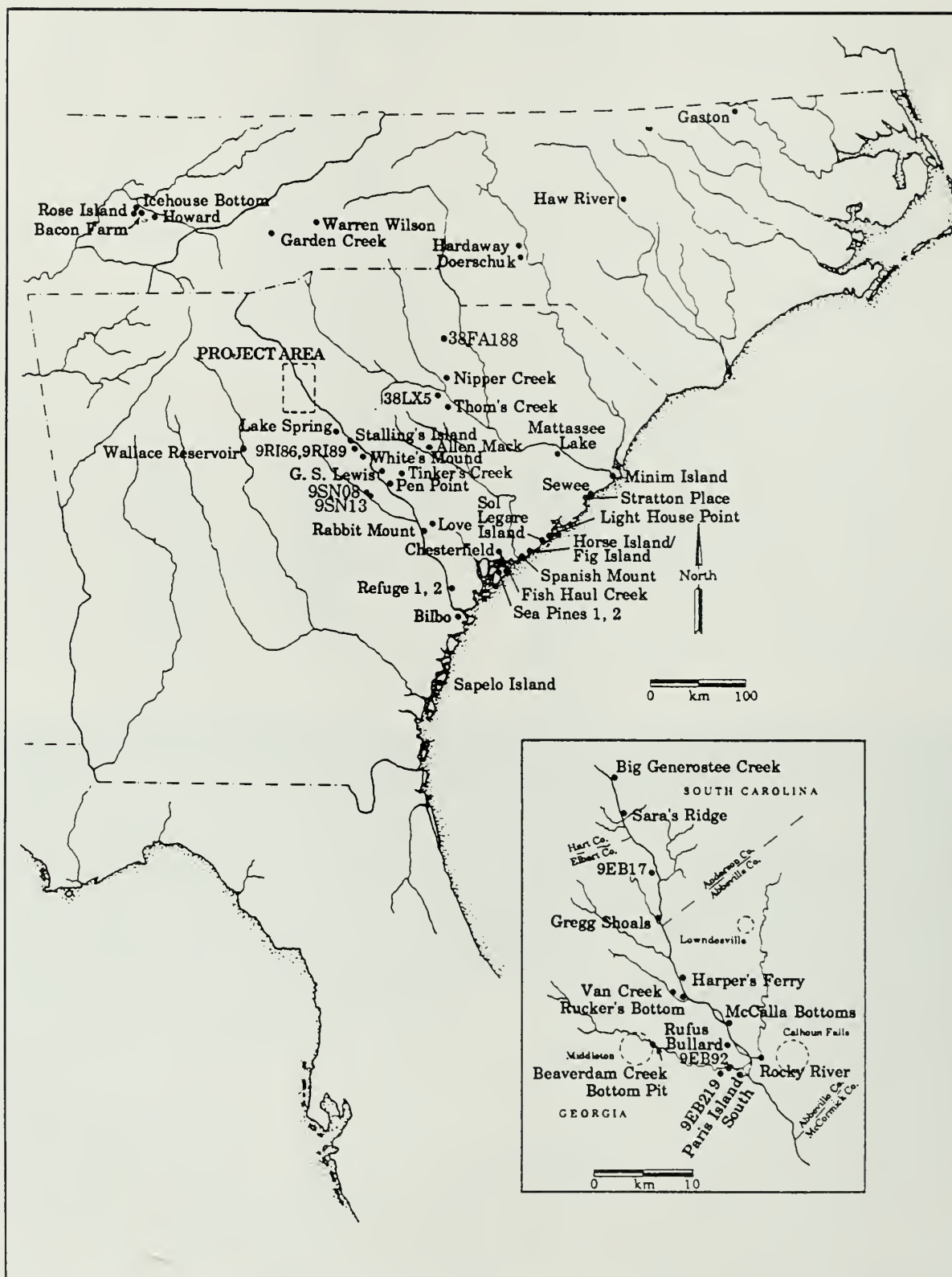
What ceremonies, if any, they held to mark a couple's union, or any other activities the bands may have engaged in, are lost. Nor do we know how people, spread out across so many miles, communicated about when to meet. We can also only guess how individuals felt about the gatherings. Surely for most, after the nearly constant moving from one place to another only in the company of their own extended families, there must have been eagerness to talk with people from far away, to renew friendships, and to share news.

The mating network probably included 500 to 1,500 people, the number experts think was necessary to maintain birth rates equal to or slightly greater than the number of deaths, and to guarantee human survival. But Early Archaic people did better than just survive. Their

numbers swelled to the point that small groups split off from bands and formed new bands, a splintering that happened again and again, ultimately leading to dwindling territories for every group.

A new variety of spearpoint in the reservoir area called the bifurcate, with a base divided into two parts, was left behind towards the end of the Early Archaic era. Perhaps the handiwork of hunters from outside the region, these spearpoints apparently represent people who didn't stay long and had little impact on land near the Savannah River.

But other changes culminated in a new era, the Middle Archaic, a time when local residents abandoned long journeys outside the region in favor of nomadic existence within the Piedmont.



Map 4: Important Middle and Late Archaic sites in the Southeast are shown, including those excavated in the Russell Reservoir Project Area (insert) in Georgia and South Carolina.

Chapter 4: More Wandering, Less Room

6000 to 3000 B.C.

The Middle Archaic Era

Living outdoors much of their lives, prehistoric people experienced the power of a thunderstorm as acutely as any of the animals sharing the woods around them. When blackening skies flashed with terrifying lightning and creeks and rivers swelled and overflowed their banks, human beings found their own meanings for the turmoil. For them, the waters, skies, and even the rocks beneath their feet were alive with invisible spirits susceptible to the same unpredictable mood swings as human beings. The fiercer the storm, the an-

grier these spirits were perceived to be. This animism rigidly guided human behavior for a time, fostering intricate rituals and taboos based on a deep reverence for the world.

Religion is only one of many aspects of prehistoric life to come into clearer focus in recent years. A much vaguer sketch existed of North American inhabitants before European occupation until the federal government's push for cultural resources investigations intensified in the 1970's. Particularly uncharted was the story of those who occupied parts of the



Figure 20: Plastic sheets protect earthen walls of the Gregg Shoals dig to keep rain from weakening them, which could cause a collapse and loss of archeological information.

Southeast in the Middle Archaic period 8000 to 5000 years ago.

The late Joseph Caldwell, noted University of Georgia archeology professor, was among the early few who contributed to knowledge about Middle Archaic people in Georgia and South Carolina. He identified the residents of that time as belonging to the "Old Quartz Culture," because their quartz spearpoints were found on ridge tops throughout the Piedmont. The Piedmont is the land between the Blue Ridge Mountains and the Coastal Plain, an area about 80 miles wide.

But before quartz became hunters' frequent choice for their spearpoints, there were new visitors, perhaps from many miles away, to the upper Savannah River valley, who chose other stones for their tools and weapons. The Russell studies revealed that small groups, even lone travelers from perhaps eastern Tennessee or the North Carolina Piedmont, ventured into the area about 8,000 years ago. They used metamorphic rocks and poor-quality chert found near the river to fashion a spearpoint with a notched stem at the base. Called a Stanly Stemmed, the projectile often appears to have two awkward elbows jutting out from each side.

Maybe the explorers met others already long established along the river and were welcomed and treated as honored guests. But they could just as easily have been viewed hostilely as interlopers and attacked. Or maybe they passed through unnoticed altogether. Only nine Stanly Stemmed points were found in the reservoir area. Their owners left few other hints about themselves, suggesting they did not linger and may simply have chanced into the

territory on one or more extended hunting trips.

Their counterparts who were already living near the river likely continued to make spearpoints similar to those of their ancestors in the Early Archaic period. But by 7,500 years ago, a new stemmed projectile emerged called the Morrow Mountain, which was made throughout the Russell area.

Inhabitants of this period still lived along the river, but in contrast to their forebears, they stayed longer in the uplands, up to months at a stretch. They avoided low ground prone to flooding for their camps, preferring

the high, dry land that drained well in the heavy rains characteristic of the region. Otherwise, their homesite requirements were few because they rarely stayed anywhere long. They did not use the winter basecamps initiated by Early Archaic people, but roamed almost continually, searching for food. When resources were spent in one spot, they packed their few belongings and looked for another site. They

stopped at a new camp only until they exhausted all the location offered before setting out once again.

Successive camping was an efficient way to exploit a landscape similar to what exists today. There were some differences between the game and other food sources available near major rivers compared to that found in the uplands, but basically the preferred resources existed everywhere in about the same abundance. People in the Russell area apparently did not depend heavily on fish, if at all, and did not gather freshwater shellfish as some of their contemporaries did in other regions.

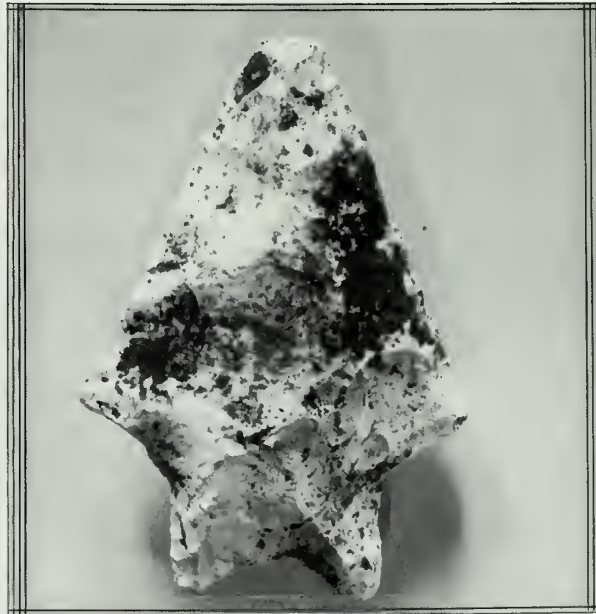


Figure 21: A Stanly Stemmed point often has jutting sides.

Since they did not stay long at any one camp and because they hunted and gathered the same kinds of foods at every site, the remains they left were similar at all locations, according to Kenneth Sassaman, who used detailed statistical analysis to document the wandering lifestyle in the reservoir and surrounding Piedmont.

Sassaman concluded, however, that minor differences did show up from campsite to campsite, in part because human behavior changed somewhat in different seasons. For example, archeologists know that deer hunting was especially important in late fall when berries and other vegetation that supplemented the human diet become scarce. The months when trees lose their leaves and forest undergrowth withers are also the most vulnerable for deer, who are left without the camouflage the foliage provides. Autumn is also deer mating season, further weakening the animals' defenses because their usual caution diminishes while bucks spar for does. Consequently, fall camps were probably different from those of other seasons because there were more tools for stripping animal hides and cracking hickory nuts than in summer camps where berries and other plant foods were eaten.

People in the Piedmont foraged so widely that they rarely stayed in the same spot more than once. They did, however, occasionally find a site that they returned to year after year. These repeated visits resulted in more artifacts left at some locations.

The wandering of Middle Archaic people, although more frequent, was conversely more restricted in territory than the earlier inhabitants', another conclusion drawn from the stone clues to their lives. No longer did these

people travel beyond the Piedmont to find the chert selected by earlier generations for spearpoints and other tools. Nor did they trade for any objects outside the region. Instead, their entire lives were spent in the vicinity where they relied heavily on quartz, abundant as outcrops in the uplands and along the river beds as cobbles. More than 85 percent of their tools found in the reservoir studies were made of quartz, confirming the accuracy of Joseph Caldwell's earlier label for the people of this era.

The change in rock preference is attributed to population growth, which led to shrinking territories, and a curtailment of the old habit of roving freely up and down the banks of the entire river. Population was still quite small, however, compared to modern standards.

There were also other differences for the people of the Middle Archaic era. They abandoned the practice of resharpening spearpoints for repeated use. While a sound habit for their predecessors who walked many miles to



Figure 22: Morrow Mountain spearpoints are squat and rough.

find chert, it was an unnecessary economy for people who found quartz within such easy reach. Abundant raw material may have also contributed to a decline in the aesthetics of their weapons. Morrow Mountain projectiles appear haphazardly made, with ovate, almond shapes. Contrasted with the precise beauty of PaleoIndian points and the less appealing, but still superior Early Archaic weapons, these later efforts look crude.

Despite their lack of visual grace, however, Morrow Mountain points may have signaled a utilitarian advance. These points, which have shown up as far north as Virginia and as far west as Texas, have a tanged base that can fit into a socket, attaching it to the rest of the spear. Before the development of this tech-



Figure 23: The deepest excavation at Gregg Shoals was dug in precise squares descending to almost 14 feet below the surface. This is the main block, with ladders in place for climbing to the bottom.

nique, the point and spear shaft could be bound together only with strips of animal tendons or similar materials.

Dennis Blanton, who studied Morrow Mountain points using specimens collected in the reservoir area and from nearby sites, determined that convenience was not the only reason for choosing quartz. Hunters had no need to seek better-quality rock because they did not use many of the specialized tools associated with their forerunners. Formal, handled scrapers became extremely rare, and there was also a marked decline in the varieties of blades and stone knives used compared to earlier times.

Archeologists are unsure why stone workers used quartz almost exclusively when there were other similarly workable rocks also readily available. Quartz was possibly chosen for its durability, or its unusual cloud-in-glass look, or perhaps for both reasons.

Just as dwindling territories in Georgia and South Carolina led to heavier use of rocks close at hand, people living in other regions of the East also depended more on stones they found close by. There were clear departures, however, from this penchant for convenience. Along the Duck River in west Tennessee, for example, hunters sometimes passed over good chert nearby to retrieve quartz from more distant locations, signalling a developing regional culture. By this time, differences between regions in the East were growing.

Many Middle Archaic sites were uncovered in the Russell area, but only two, Rucker's Bottom and McCalla Bottoms, had significant artifact deposits, indicating repeated and potentially longer stays than was usual. Rucker's Bottom in Elbert County, Georgia yielded the heaviest concentration, with stone tools uncovered over a wide area. Small groups possibly camped there annually, accounting for

the density and spread of artifacts. But there could be another explanation: Many different bands (extended family groups) may have rendezvoused there. Analyzing the data at Rucker's Bottom proved difficult because the Middle Archaic tools, pressed in a thin layer of dirt, were sometimes interspersed with others from a later era, clouding any conclusions.

Some archeologists think there were no formal get-togethers of different bands in this era like those held in the Early Archaic period. Kenneth Sassaman, for instance, theorizes that Middle Archaic people no longer needed such gatherings for mating because the population was now sufficiently large to ensure informal contact among people from different bands. Most research so far in the Georgia and South Carolina Piedmont supports this view. Extended-family bands continued as society's organizational units, with adults retaining fairly equal control, as they had in earlier generations.

McCalla Bottoms, across the Savannah River in Abbeville County, South Carolina, triggered more speculation about prehistoric residents. Archeologists there detected earth stains, called features, which were possible residues of small pits. The residents could have used the pits for storing hickory nuts. Nearby, at Gregg Shoals, Ann Tippitt and William Marquardt discovered some charred nuts near signs of a campfire dated to the Middle Archaic era. Also, many pitted and battered stones, ideal for cracking nuts, were found at Rucker's Bottom. The battered hammerstones there may have also been used to make spearpoints and other tools, but the large quantity found suggests people were eating more plant foods than before.

Along the river beach just south of Gregg Shoals, archeologists also discovered pieces of stone axes, probably crafted in the closing years of the period. Mostly, however, what remained of Middle Archaic culture were spearpoints and various stone tools called crude bifaces and expedient unifaces. A spear-

point is called a biface because it has sharp edges chipped on both sides or faces. A crude biface is similar, but made much faster, without the attention to detail given a spearpoint. Nor was a crude biface attached to a handle or spear, but instead was used as a disposable knife. An expedient uniface is a rock sharpened on only one side, used maybe once or twice for scraping hides or other cutting tasks, then discarded.

Nothing was found to show that residents along the Savannah River were experiencing the dramatic cultural changes taking place in Tennessee and elsewhere. Possibly the proof that they did undergo some similar transformations was destroyed in the corrosive Piedmont soils.

Artifacts from the era discovered in Tennessee, for example, include delicate bird bones, which artists at Eva, near the Tennessee River, fashioned into decorative beads. They also drilled holes in the teeth from dogs, bobcats, and bears then strung them into necklaces and even turned the skeleton of the rattlesnake into a wearable decoration. Not all the jewelry was organic, however. The Eva

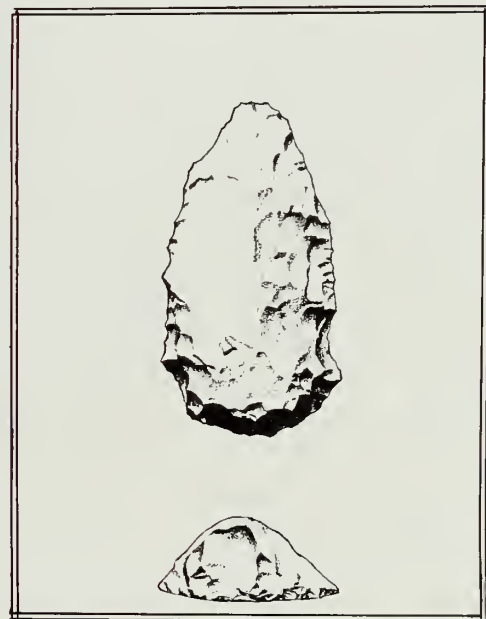


Figure 24: Called "uniface" tools by archeologists, some implements had only one side sharpened and were used to cut and scrape.

residents found yet another use for stone. They smoothed the edges and drilled holes in flat rocks to form pendants to hang from necklaces or bracelets.

Innovation also extended to their diet. They learned to exploit freshwater mussels found in the river channel and no longer wandered as widely or as often foraging for something to eat. Moving less enabled them to amass more possessions, which they didn't have to carry with them everywhere.

Eva graves disclosed more details about these Middle Archaic people. They gave their dead formal burials, with the body deliberately arranged in a flexed pose resembling the fetal position. In some cases, a dog accompanied the deceased, one of the earliest signs of their domestication. The individual's worldly goods were also interred, such as spearpoints and other tools.

More proof that people were settling longer came in southwest Illinois along the Illinois

River at Koster. Formal burials were found there, as well as the remains of platforms from what were potentially the first dwellings of long duration in the country. And in north Alabama, more burials with grave goods were discovered at the Stanfield-Worley rock shelter and inside Russell Cave, now a national monument.

Besides making stone implements, the Alabama residents also crafted animal bone tools. For example, they formed an awl—a long taper—by sharpening a bone to a fine point, which they then used to punch holes in animal hides that could be sewn together for clothing or as shelter covers.

Hunting techniques were also undergoing refinement. Another invention generally attributed to the era and indicated at both the Tennessee and Alabama sites was the atlatl, or spearthrower, used to add speed and force to a hunter's toss. Made of wood and about half to a third the length of the spear, the atlatl

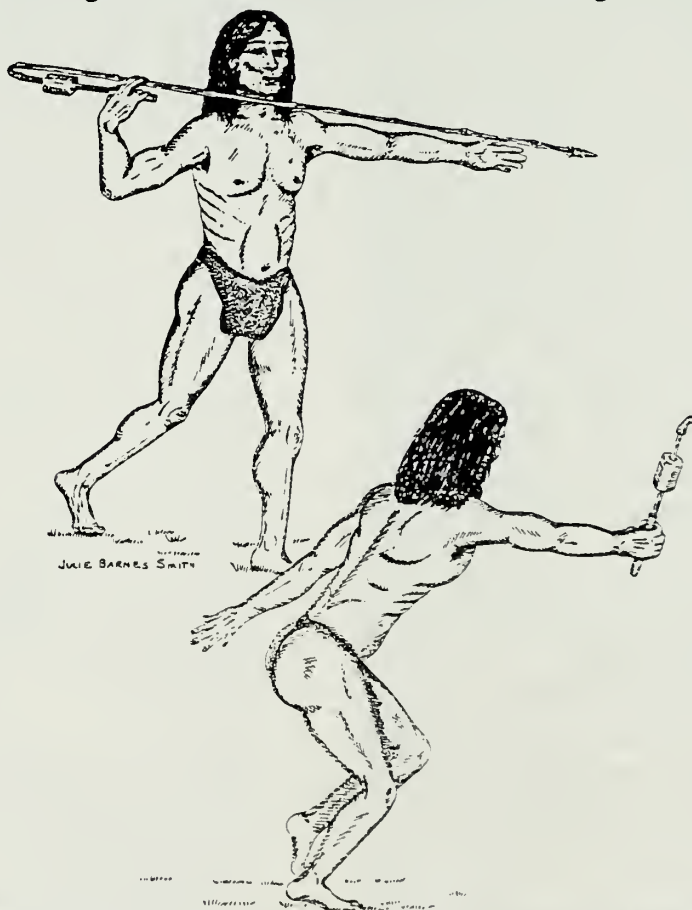


Figure 25: An atlatl, or spearthrower, enabled the hunter to throw his weapon farther and with more force.

attached to the spear end by means of a hook made from bone or deer antler. Once fastened, the spear then rested on the atlatl, which was often weighted with a stone, perhaps to balance the throw. When a hunter spotted game, he poised the weapon over his shoulder then unleashed a powerful throw that unfurled the spear and left the atlatl in his hand. The process demanded the same precise aim, muscles, and technique that make a great baseball pitcher.

People in northern Alabama and western Tennessee also polished stones by rubbing them together. The polished stones were often used for purely aesthetic purposes such as jewelry, but a primary early use was as weights on atlatl sticks.

While people in the reservoir area seemed untouched by many of these developments, by the close of the Middle Archaic period, or about 3000 B.C., land along the Savannah River was about to become a staging ground for innovation. The catalyst for change in the Late Archaic period which followed may have come from different sources. One possibility was the climate. The Middle Archaic years coincided with a global warming trend known as the hypisthermal, which brought dryer conditions to many places. But the effect this had on the Russell area is unclear. Most scientists agree the hypisthermal was a time of warm temperatures, possibly slightly warmer than today. But some think there was increased moisture in the region, while others talk of drought.

Then, too, by the conclusion of the Middle Archaic period, sea levels, rising in fits and starts since the Ice Age, stabilized at about their present height, allowing migratory fish to begin moving far up the river to spawn. This provided a new source of food for humans and gave them incentive to spend more time along the Savannah River.

During this period, as shown by the research of John Foss and Joseph Schuldenrein,

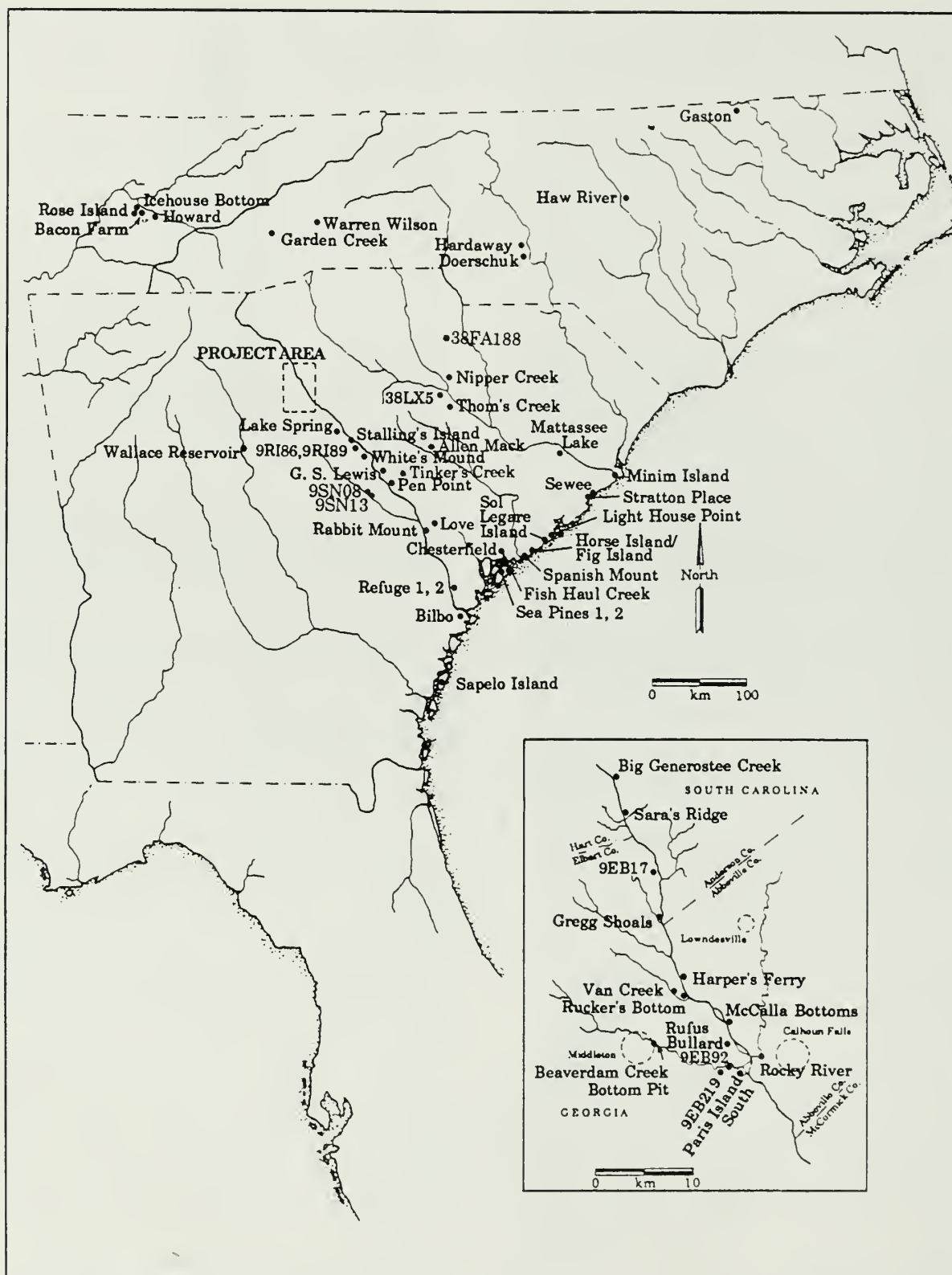


Figure 26: The Guilford projectile point.

the terraces along the sides of the river stabilized, meaning their form remained relatively unchanged over hundreds of years, making them more hospitable for long-term encampments.

Fresh ideas may have also found their way into the vicinity because of population movements. As the end of the Middle Archaic era approached, there may have been a relocation towards the Savannah River from the mid-South where people already lived a more settled existence near major rivers. The influx of these new people is suggested by the appearance of another spearpoint south of the reservoir near the fall line and in the Coastal Plain. Initially, the new occupants probably had no effect on those already established in the Russell area whose lives continued at the same measured pace with few changes.

Near the end of this cultural tradition, however, inhabitants of the Russell area did begin to use a new spearpoint, the Guilford. With its long, lean lines, it resembles the old Clovis point of the PaleoIndians. Eventually, the Guilford was replaced by spearpoints with squared stems. It was these projectiles that heralded the beginning of a new age, the Late Archaic period, a time of new ideas and widespread trade.



Map 5: Important Late Archaic archeological sites in the Southeast are shown, including Sara's Ridge, Paris Island South, and Rocky River excavated in the Russell Reservoir Project Area (insert).

Chapter 5: A Wealth of Discoveries

3000 to 2000 B.C.

The Late Archaic Preceramic Era

On a clear morning in early spring, a hawk soared over a dense forest. His sharp eyes scoured the world below, searching for a small, careless animal that would provide his first meal of the day. Only the wind and the faint rustling of his wings disturbed the quiet until the hawk reached an unexpected clearing in the trees where loud, unfamiliar sounds erupted and disturbing swirls of gray smoke curled into the sky. Sensing danger, the hunter beat his powerful wings and was soon miles away.

There was too much to do along the river that morning for anyone to notice the retreating hawk. People involved in various activities were scattered across the quarter mile of the gap in the woods. They had cleared the land themselves by cutting away underbrush and small trees with stone axes. Bigger trees that couldn't be easily felled, were stripped of bark as high as a man's arms could reach with stone knives. Big swaths had been cut, leaving tender wood exposed, and soon killing the trees. The tallest upper limbs remained, but with branches now permanently devoid of leaves, allowing the sun's full strength to reach the ground.

The sandy soil that once nurtured the trees and now was claimed by the settlers, was part of a long, broad levee parallel to the river, a summit built over thousands of years by floods depositing sediments. A ridge slightly higher than the rest of the levee gave an ideal vantage point. It was along the crest of the ridge that people built their homes.

Young, sturdy hickory trees, stripped of branches and limbs, formed the frames of their houses. Pines were avoided because they snapped easily, but the hickory was strong and

made limber by soaking in the river. When the wood was pliable, the men dug a wide oval of holes eight inches deep. They placed the tree poles, some a foot thick, into the holes and packed dirt around the bases to hold them securely. They left a gap wide enough for a doorway facing the river.

Next, they pulled the tree tops towards the center of the oval and tied them together with vines. To finish the house, the women helped cover the frame with deer hides, plant thatch, and bark strips taken from the big trees. The shelter was only partly effective for keeping out the rain and cold, but inside there was a smoldering fire within a stone circle that could be stoked for more warmth, as well as for cooking.

Near the fire in the dirt floor were two shallow pits where food wrapped in animal skins was kept, safe from scavengers and ready to be prepared for the next meal. The dwelling floor and ground around the shelter were swept clean of debris. Outside the house, several more fires burned nearby and there were also more pits. These were about a foot-and-a-half to three feet wide and about eight inches deep. Some, like the holes inside the shelter, were used to store food, while others were for cooking.

Animal skins, scraped with sharp rocks until free of flesh and hair, were loosely stretched across the cooking pits. The edges of the skins were pegged securely to the ground with sharp sticks. A stew of meat from white-tail deer, roots, and herbs simmered in one of these skin containers. From time to time, one of the women tending the stew went to a nearby fire where she used a long stick to pull out a soapstone slab with a hole in it from the

flames. By pushing the stick further through the hole, she was able to carry the hot rock to the cooking pit where she dropped it into the stew. The liquid rose to a fast boil from the added heat, then eventually returned to a simmer, which lasted for some time.

She repeated the process many times, walking to the fire, built far enough away to avoid ash blowing into the cooking food, pulling out a dangerously hot rock, then depositing it into the stew, until she was satisfied with the results. Her young daughter shadowed her footsteps, watching and learning.

Behind the shelter and down the slight slope from the ridge crest, another group of fires was scattered from five to ten yards away. Here the men and boys gathered. Their laughter mixed with the sounds of preparing stone weapons and their recalling the day's successful hunt. One man fed green wood onto a fire to cause smoke to waft over deer meat and fish arranged on wooden frames close by. When the food was thoroughly dried and smoked, he would give it to the women to save for other days when the hunting and fishing did not go so well.

Between some of the fires, rough poles of hickory and oak were stuck in the ground and draped with animal skins stretched between them to block the cool breeze. These baffles also helped keep the smoke from escaping before it served its purpose of drying the fish and meat. The sharp sound of rocks hitting rocks punctuated the air, and splinters flew dangerously as some men made weapons and tools. Stone debris was everywhere underfoot.

Furious growling caught everyone's attention. Two dogs were wrangling over a bony piece of meat, dragged away from the fires when nobody was watching. The fire tender picked up a sharp rock and threw it at the dogs, who momentarily stopped their battle, then quickly resumed it.

* * * * *

About 5,000 years ago, not far from Anderson, South Carolina, people gathered in

such a place and likely engaged in such activities. Their existence came to light during excavations guided by Dean Wood, who named the site Sara's Ridge after the newborn daughter of two of his crew.

Sara's Ridge also marked an epiphany of sorts for archeology because it was on this crest overlooking the Savannah River that some of the first evidence of substantial housing from early prehistory in the Southeast was discovered. The dramatic finding took place when archeologists located 87 stains buried in the soil, marks caused by posts driven into the ground, which left the discolorations as they decayed. Some of these stains, called postmolds, could have come from rotting tree roots, but at least 25 resulted unmistakably from sapling posts deliberately arranged.

Before Sara's Ridge, only three other sites in Georgia and South Carolina had shown any sign of Late Archaic housing, again detected by postmolds. Stains indicating a possible lean-to were found in the Georgia Coastal Plain near the Savannah River, while in South Carolina, a small, D-shaped postmold pattern was uncovered on Hilton Head Island, and potential signs of a structure about three yards long were discovered on Sol Legare Island. But with the possible exception of the Sol Legare site, these other postmolds indicated insubstantial structures, making the find at Sara's Ridge all the more important. (Since completion of the Russell Reservoir studies, archeologists have uncovered evidence of several other Late Archaic houses in Georgia.)

The discoveries on the levee crest at Sara's Ridge might never have happened with different weather and less skillful researchers. The crew gathered on the ridge in February. They were young, mostly in their twenties and thirties, a mix of professional archeologists, students, and interested amateurs. Some of them camped on the site during the dig, with a few trying their hands at fishing in the river and cooking their catches over campfires.

Field work began soon after dawn and continued until sunset. Tasks were physically



Figure 27: Sara's Ridge might have looked like this. The woman in the foreground is cooking with soapstone slabs, while hunters carry a deer toward racks where fish are being dried over a fire.

strenuous with much digging, stooping, and carrying, but there was always the possibility of finding something significant.

A bulldozer equipped with a sharp blade prepared the site by clearing away surface soil. Then the crew marked the ground into precise meter squares (about a yard wide) by inserting stakes, creating a grid for pinpointing exactly which spot might later yield a discovery. Patiently, workers dug with sharp, flat shovels inside the squares, scooping out about four inches of dirt, then sifting the soil through a screen stretched across a wood frame suspended from saplings. Dirt could pass through the quarter-inch mesh, but most stone artifacts would remain on the screen.

They labored methodically, square by square, without any startling results. Then they repeated the cycle, starting at the first square and digging down four more inches in a tedious procedure that couldn't be rushed.

Finally, between two and three feet below the surface, darkened circles in the soil appeared.

The discolorations would have gone unnoticed by most because postmolds are often only faintly perceptible from surrounding soil. Even trained eyes may overlook the stains if a hot sun hits the soil surface because the heat and exposure can quickly erase them from view. But fortunately, a recent rain had dampened the earth at Sara's Ridge and prevented the postmolds from vanishing before they could be mapped.

Analyzing their findings, the archeologists later speculated that most of the stains represented benches, drying racks for fish and meat, and baffles to block the wind. But the most exciting discovery was a distinct oval of postmolds about seven-and-a-half yards long and five-and-a-half yards wide. This had to be the outline of a shelter.

They looked closely for any signs of clay

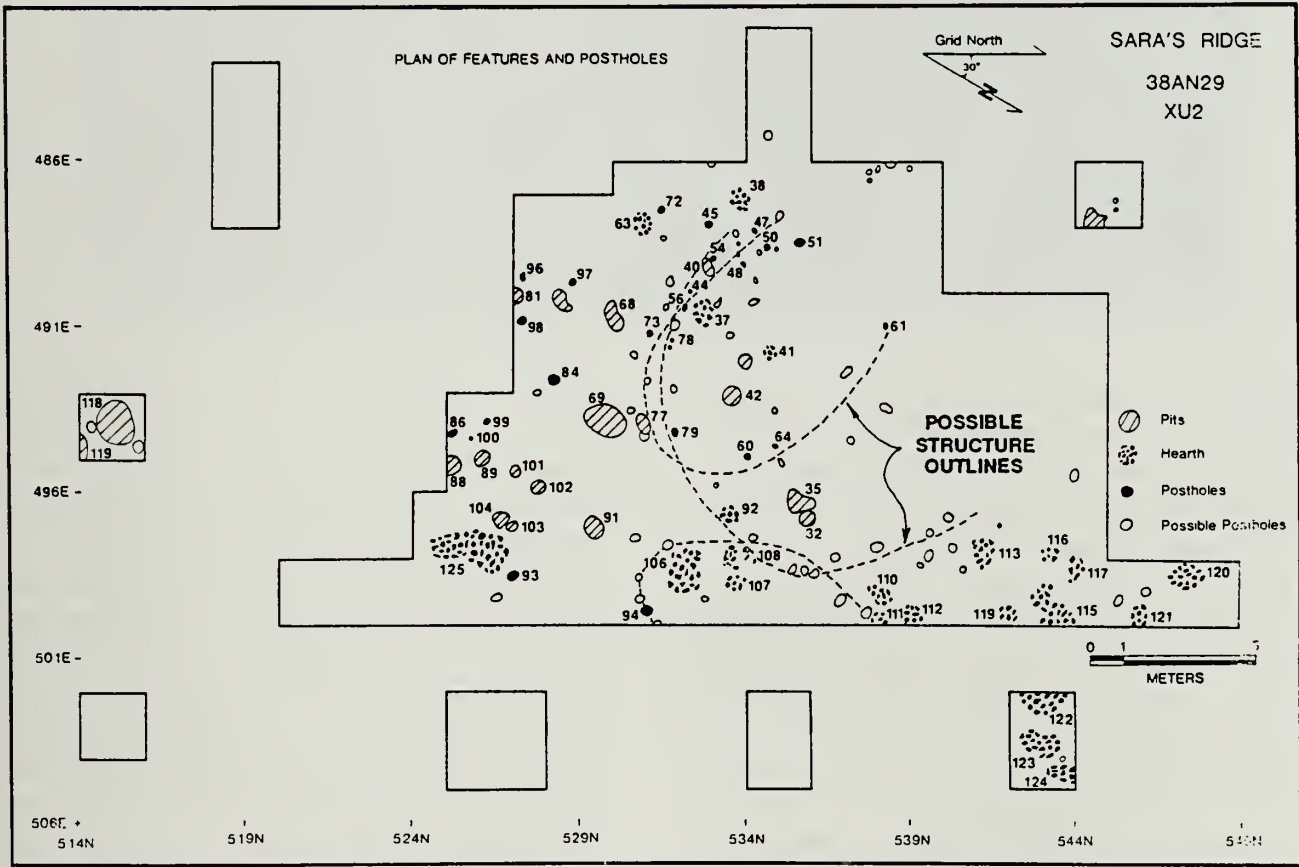


Figure 28: Using circles and other marks, archeologists show Late Archaic features, including postmolds, at Sara's Ridge. Such drawings give a bird's eye view of discovered artifacts and features.



Figure 29: Mesh screens are suspended from saplings, ready to sift dirt in the search for artifacts.

daub to indicate that the dwelling had been coated with a mix of mud and grass, but found none. They concluded that the builders must have covered their home instead with animal skins, bark, or thatch, or perhaps a mixture of the three. Later, in the same general area, prehistoric people did smear their structures with an insulating and preserving mud blend.

There were so many postmolds along one side of the oval that researchers think that section of the house was repaired or rebuilt several times. Rebuilding is compatible with the theory that Sara's Ridge was reoccupied over the years, perhaps to take advantage of seasonally migrating fish. The river flowing

nearby was shallow and only about 100 yards wide. This offered an ideal place to build a stone dam or a V-shaped stone weir for funneling fish into a small area so they could then be easily captured in nets or speared.

The Savannah was relatively unique among Southeastern rivers because of its use by migratory fish. In the years before dams blocked their way, the fish swam in the Savannah's waters far inland, deep into the Piedmont, providing a reliable, annual catch in a season when other resources were somewhat scarce.

Marine fish such as shad began their return to inland spawning sites in early spring, per-

haps alerted to start by a change in ocean temperature. Thousands of them struggled against the river currents, throwing themselves over rock falls, compelled by some irresistible, internal drive. If they survived this endurance test during which they ate nothing for up to four months, females laid as many as 365,000 eggs apiece near where they themselves were spawned. The males then fertilized the eggs, which floated downstream.

Fewer than one percent of the eggs produced hatchlings. These and surviving adult fish eventually swam back to the ocean where they stayed until the younger generation was eventually driven back to the river to fulfill its role in the cycle.

While intercepting the fish as they swam past the rocky shoals would have fed many on the levee called Sara's Ridge, capturing them in nets or weirs would have required many cooperative hands. The abundant signs of human habitation at the site suggest such a possibility, although a firm conclusion about the number of people who spent time there is impossible.

Undoubtedly, cooking was one of their major preoccupations. Two possible hearths existed within the oval shelter, along with several more hearths nearby. In the work area on the slope behind the house, evidence of 18 more hearths was uncovered. So many fires suggest that more than one dwelling existed, although there was no definitive sign of others.

Possibly the site was a seasonal gathering place for people who normally lived apart. Because there were no plant-processing tools uncovered, such as pitted rocks, the residents' purpose in choosing the spot perhaps was quite specific—to fish, hunt, or both. While they might have used wood tools to prepare plants, the wood would have disintegrated, leaving no trace. Probably, however, stone tools were preferred. Stone tools, apparently used for processing plants, were found at another site nearby.

Remnants of ancient maypop seeds and

hickory and walnut shells did appear at Sara's Ridge mixed in with the soil of the Late Archaic period, so the inhabitants may well have eaten those foods. The maypop is a vine that produces a sweet, yellow fruit from an exquisite purple and white blossom popularly known as the passion flower. Traces of pollen from ragweed, often an indication of cleared land, were also found at the site.

An examination of Late Archaic tools at Sara's Ridge disclosed they were made of chert, quartz, and metamorphic rocks. The metamorphic rocks came from at least 25 miles to the south, perhaps even farther. Most major sources of the stone are north of Augusta, Georgia, more than a 50-mile trip for the people of Sara's Ridge if the stone wasn't obtained through trade.

Soapstone slabs with holes drilled in them found at the site, coupled with others from a nearby excavation at Paris Island South, provided new information about the possible function of these artifacts. Previously, most archeologists had assumed these perforated rock slabs were "netsinkers" used, as their name implies, for weighing down fishing nets. But their frequent discovery near hearths at Sara's Ridge and Paris Island South suggests instead that they served as boiling stones.

Like Sara's Ridge, the Late Archaic site at Paris Island South was located on a levee overlooking the Savannah River. The excavation there, organized by Dean Wood and Dan Elliott, indicated that housing was probably once located on the crest of the levee, but any signs of a structure had been washed away from the island. Left intact, however, was an area for making stone tools located on the slope beneath the crest. This work area was conveniently close to probable dwellings but enough removed from the main living area to protect bare feet from sharp rock. The accumulation of stone debris there was much heavier than at Sara's Ridge.

Refuse of all kinds, which archeologists call midden, was once so plentiful at Paris Island South that as it decomposed it stained the earth

a faint black, in some spots up to 16 inches thick. The discoloration, although welcome proof of human existence, interfered with the process of locating storage and cooking pits and postmolds. However, a few posts had been driven deep enough beneath the stained soil to confirm the probable location of drying racks or other sorts of frames. The postmolds appeared near charcoal and fire-cracked rock, indicative of hearths.

This prehistoric garbage dump, stretching over 16 yards long and more than six yards wide, yielded as many as 760 flaked stone tools, including spearpoints and knives. The huge volume and variety of artifacts were pivotal because they revealed that people along the river were now staying longer in one place. Paris Island South was either a year-round residence or at least a semi-permanent home for a family or small extended family.

Also on the island, a category of stone tool surfaced that hadn't appeared at sites in the area from earlier periods. Called a *mano*, the flat stone, somewhat smaller than an adult hand, was used for grinding and crushing seeds and other plant edibles. Four *manos* were found—two intact, two broken. They were all rubbed smooth on both sides from frequent use.

Two pitted stones were also unearthed. Seven pits in one of these stones imply extensive use, perhaps for cracking nuts. There were also three hammerstones.

Other artifacts prompt an intriguing notion that the islanders may have engaged in a cottage industry of sorts, producing the curious perforated soapstone slabs for trading. Paris Island South is not far from a soapstone outcrop just across the river in Elbert County, Georgia, making the raw material readily available. Among the persuasive discoveries favoring the idea of prehistoric commerce was a profusion of these artifacts which were previously considered to be netsinkers. Piecing 424 scattered fragments together in a technique called cross-mending, researchers ended up with 46 complete perforated slabs. Less than

half-an-inch thick, they averaged about six-and-a-half inches long and about four inches wide. The slabs were mostly shaped into rectangles or pentagons. Smooth surfaces were predominant, but several had thin lines or small notches etched in the surfaces, perhaps for decoration.

More findings in support of a possible manufacturing center were 23 stone drills that were once attached to wooden handles. The drill points matched the sizes of holes in the slabs. There were also some partially drilled slabs and a grinding stone used to shape the slabs, along with many stone scrapers, once attached to handles, used to smooth the soapstone.

There was probably a receptive market for the prepared slabs. Studies by Dan Elliott and Kenneth Sassaman have shown that people living farther away from soapstone sources tried to salvage broken perforated slabs by drilling new holes in them, indicating they valued the artifacts. But Paris Island South residents apparently never bothered to redrill holes, maybe because more soapstone was so easy to get.

Other illustrations of stone working on the island displayed the first hint in the Russell studies of another, distinctively human trait—the desire to ornament the body. A highly polished stone bead of reddish brown was found, as well as two smooth, small slabs of stone, possibly pendants or gaming pieces.

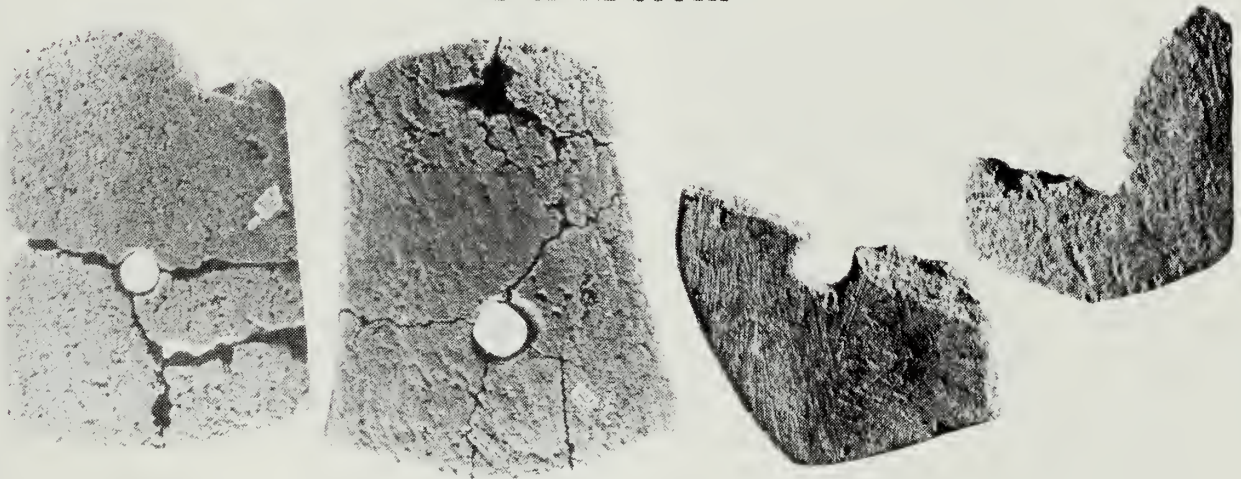
Still more artifacts, stone cobbles with abraded edges, suggest use in forming wood tools. Also found were stone abraders with grooves which were used to sharpen bone, antlers, or wood into points for use as fish-hooks, chisels, awls, and spearpoints.

Unlike Sara's Ridge, where artifacts were made of metavolcanics and chert, most of those found at Paris Island South were formed from quartz, probably because the residents didn't travel far for materials. Of the tools not made from quartz, one percent—mostly crude cleavers used for chopping and stone flakes for scraping—were of a poor-quality chert.

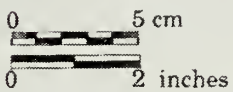
SARA'S RIDGE



PARIS ISLAND SOUTH

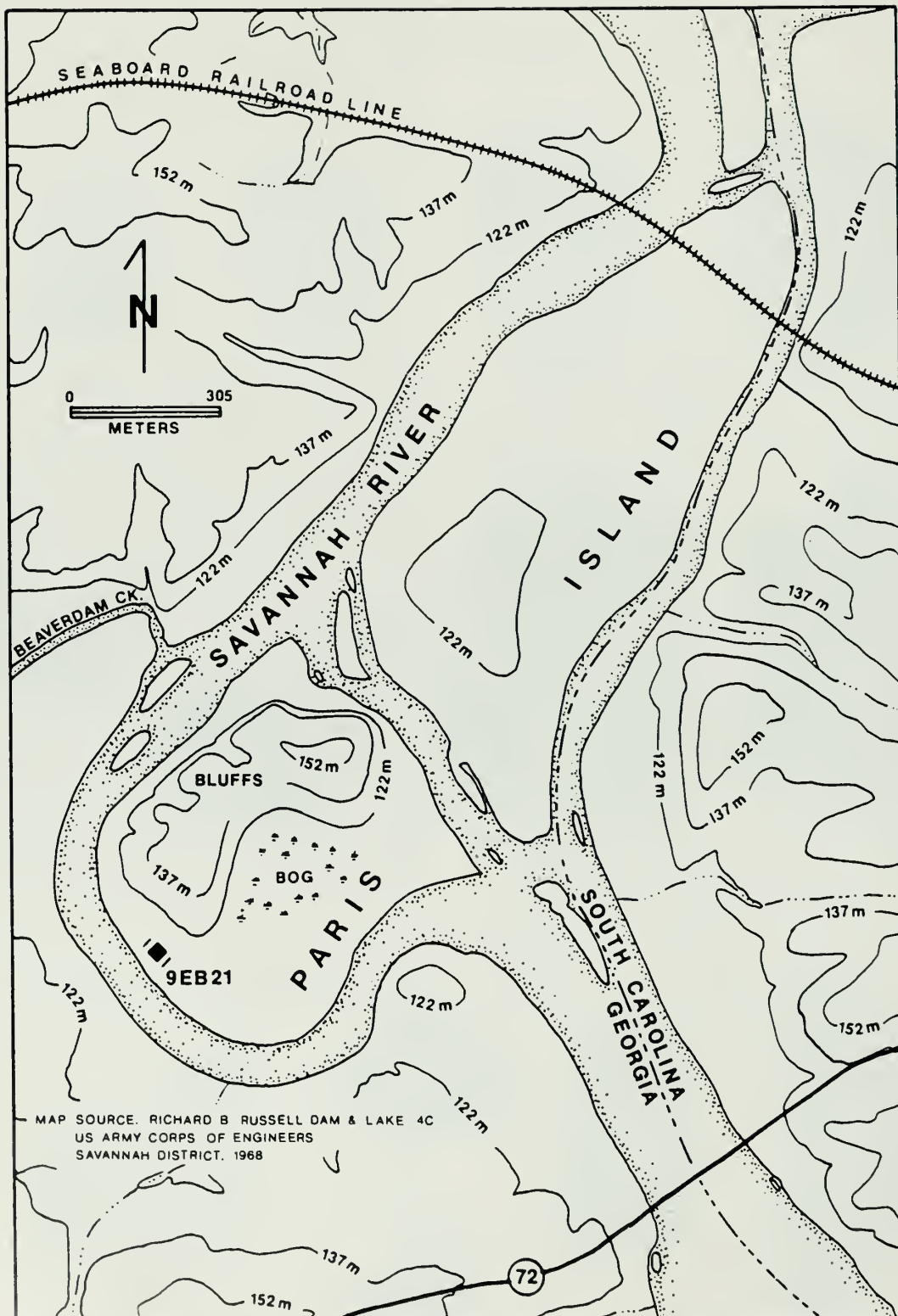


ROCKY RIVER



Source: Wood et al. 1986: 158, 283, 284; Anderson and Schuldenrein 1985: 242

Figure 30: Different types of soapstone slabs were found at three excavation sites not far from one another.



Map 6: Paris Island South, 9EB21 in the lower left of the map, was probably occupied most of the year during the Late Archaic era. Contour lines denote land elevations, which are measured in meters.

The chert probably came from bluffs that formed one side of the island and overlooked the river not far from the campsite. Pieces of chert were also available in the river bed.

Not far from Paris Island South, another site was explored. Called Rocky River, its name comes from the adjacent river, a tributary of the Savannah. The site dates between 2970 and 2990 B.C., the same approximate time of occupation as the site at Sara's Ridge. Paris Island South was apparently used a century or two later, between 2700 and 2900 B.C.

The Rocky River excavation, located about a half mile from the Savannah River in Abbeville County, South Carolina, featured an expansive stone working area on the back slope of a slight ridge. This work place was also part of a thick prehistoric garbage dump or midden, a strong sign of extensive human use.

Researchers Charles Cantley and Andrea Lee Novick found that all stages of spearpoint production took place at Rocky River. Interestingly, however, larger flakes from the beginning stages of spearpoint manufacturing showed up mainly on the outskirts of the midden. Perhaps toolmakers periodically swept their primary work area clean.

The presence of heavy bone deposits were detected through soil chemical analysis by Joseph Schuldenrein, the project geoarcheol-

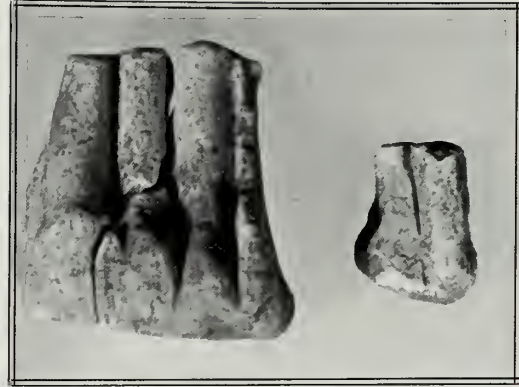


Figure 31: Grooved abraders made of stone were used to sharpen bone, antler, and wood tools.

ogist. Late Archaic people left animal and fish bones, stripped of their flesh, to decay until only the chemical residue remained. Tests also detected considerable phosphate, suggesting they deliberately cleared trees and burned them to attract wildlife, especially deer, and to promote growth of the leafy plants with many seeds that the inhabitants ate in quantity.

Like Sara's Ridge, Rocky River was a likely place for people who normally lived apart to gather to hunt or fish. The river adjacent to the site is usually shallow, and there is a band of igneous rocks spanning the water. This forms a natural weir useful for catching fish. Not many such ideal spots for catching migrating fish existed in this general area, which may have encouraged scattered groups to camp at Rocky River and cooperate.

Too, such gatherings would have had the added bonus of renewing ties among normally isolated people, who could exchange information while they caught and prepared fish.

For the first time, a stronger chain of command would have been required because expanded food-gathering tasks required a more

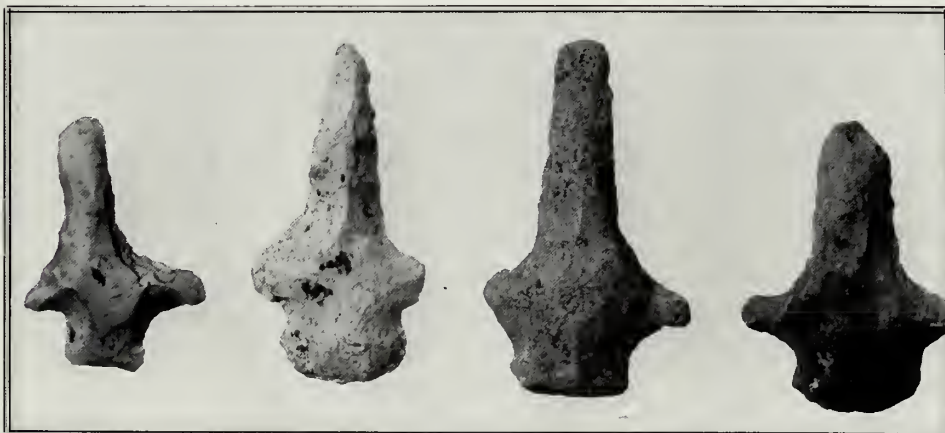


Figure 32: Stone drills were among the Late Archaic tools discovered during the Russell studies.

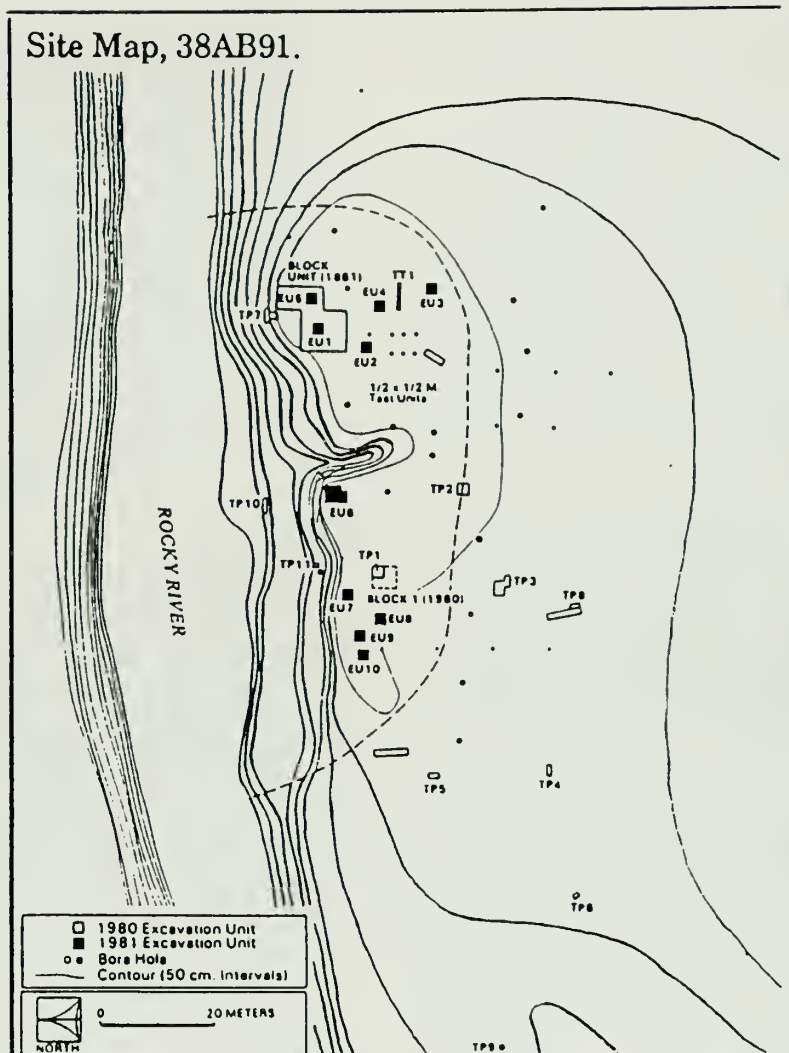


Figure 33: This site drawing of the Rocky River excavation represents the setting shown in Figure 34.

complex organization than the former egalitarianism, and likely fostered the beginnings of tribal control. These societies probably had various leaders, each with different status.

In the 1970's archeologists Albert Goodyear and John House theorized that Late Archaic people tended to spend most of the year in basecamps near the river and less time in the nearby uplands, a view largely substantiated by research connected with the Russell studies. Scientists now recognize a number of site types for the Late Archaic period, denoting a society grown more complex. These site types, in part from a model developed by Dean Wood and Dan Elliott, include:

- Basecamps, including Paris Island South

near the Savannah River, where people lived all or most of the year;

- Seasonal camps along the river, like Sara's Ridge and Rocky River, where usually dispersed people pooled resources to get food;

- Quarries where task forces collected rocks. Three soapstone quarries were found in the Russell area not far from Paris Island South and Rocky River;

- Quarry workshops where the first steps in shaping rocks were taken. Archeologists found such a work area within 200 yards of one of the soapstone quarries;

- Transitory camps in the uplands and along the river for specialized uses such as fall deer hunting or walnut and hickory nut collec-



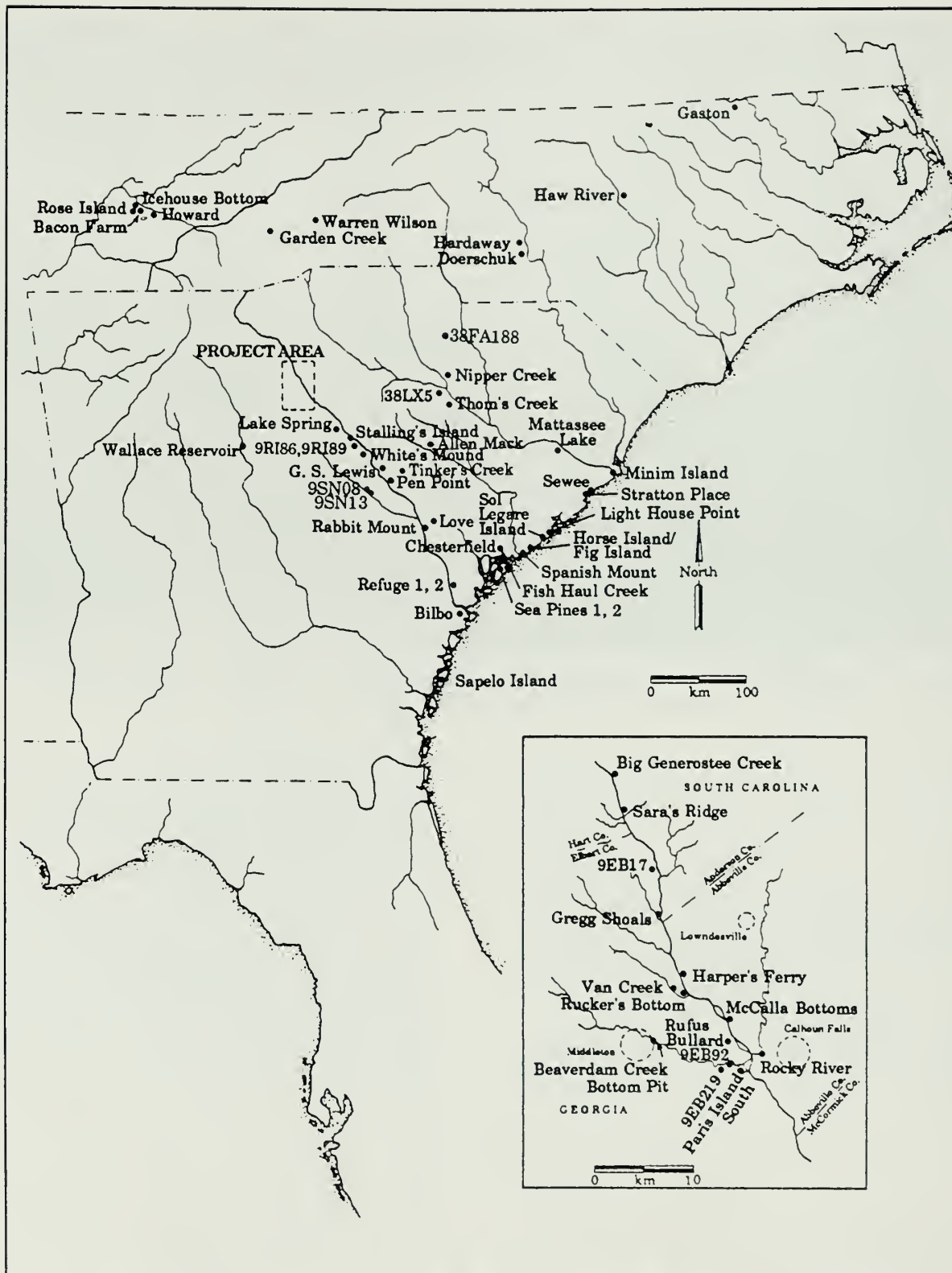
Figure 34: A natural rock weir ideal for catching fish is visible in the river, while the site where archeologists dug to find Late Archaic deposits appears near the top of the aerial photograph.

tion. Some of these camps were repeatedly used by hunting task forces or even entire families.

Before the Russell studies, there was little evidence to suggest that people of this era had established major settlements in the interior of Georgia and South Carolina like those found at Sara's Ridge, Paris Island South, and Rocky River. Excavations of those sites also surprised experts in another way. The people who once lived there did not depend on shellfish

like those who came after them and lived farther south along the Savannah River.

Maybe those within the Russell area influenced others farther south in their decision to stay for longer periods along the Savannah River, a shift destined to have dramatic consequences. On Stallings Island near Augusta, Georgia, and at neighboring places, prehistoric people were about to make a discovery that would change life throughout much of the eastern United States.



Map 7: Important Late Archaic sites in the Southeast are shown, including those excavated in the Russell Project Area in Georgia and South Carolina (insert).

Chapter 6: A Leap Forward

2000 to 1000 B.C.

The Late Archaic Ceramic Era

Hunger, always a powerful motivation, perhaps played a role in some of the changes in prehistoric cultures. After people perfected hunting and gathering techniques and learned to preserve food, they were still faced with the problem of inadequate cooking methods. Roasting meat over campfires was only one of their preferences. They were particularly fond of stews, which could not be cooked in the same way. Boiling liquid meals in animal skins stretched over pits sufficed as a solution for a time, but the repeated heating of boiling stones was inefficient and tedious. There had to be a better way.

Maybe the solution, like so many steps in human progress, came by accident. Consider the possibility, suggests Dean Wood, that a family built one of their cooking fires over a shallow pit lined with clay that was slightly damp from rain. Perhaps after the fire had burned out, someone happened to notice that the dirt texture in the pit was different than before. Heat from the fire had baked the clay solid, and because of the pit curve, the residue was slightly rounded and could be lifted out.

The discoverer would have marveled at the misshapened bowl, and no doubt experimented with it, carrying it to the river to test, and inviting others to witness the revelation when the vessel somehow held water. They would have passed the object around, taking turns drinking from its uneven sides, until somehow the treasure slipped to the ground and smashed into pieces. But if such a wonder could happen once, it must be possible again, and the creative spark was ignited.

In truth, scientists can only speculate about how the momentous invention of pottery came about, but they can say with fairly dependable

accuracy that ceramics first appeared along the Savannah River about 4,500 years ago.

A small patch of land in the river near Augusta, Georgia, called Stallings Island was first excavated in the late 1800's. There, amid an enormous heap of discarded freshwater mussel shells, archeologists found broken pottery pieces, called potsherds or sherds. Research showed that prehistoric people feasted on mollusks at Stallings Island in great numbers, throwing the shells into a pile that reached 12 feet tall, 500 feet wide, and 1,500 feet long.

Mussels, easily retrieved from their shallow burials in riverbeds, were possibly the incentive for scattered groups, who normally lived miles apart, to gather regularly on the island. Maybe among them were people from the Russell area, some of whom would have traveled more than 50 miles for the occasion.

Harvesting shellfish was only one of the rewards of the journey. Renewal of ties with distant relatives and friends was accomplished, and new alliances and improved relations resulted that helped prevent territorial disputes and possible bloodshed. Probably there were ceremonies and the choosing of mates. Perhaps among the story swapping and sharing of knowledge that would have marked such events, the one who discovered pottery demonstrated how to make containers. Soon people who gathered at the island were making and using a great deal of pottery.

As they used and broke the ceramics, people tossed the fragments on the shell piles, which over the centuries acted as preservative shields for many ancient items. When archeologists examined the shell heap thousands of years later, they located an exceptional collec-

tion of artifacts, including fragile bone tools of awls and fish hooks. There were also decorative pins, shell beads, and bone and stone pendants of such diversity and in such quantities that great multitudes of prehistoric visitors are indicated. But the bits of pottery were most remarkable of all because none had been found from so long ago elsewhere in the United States.

The potters, whose work survived only in fragments, had learned to improve on the original mix of clay and water by adding strands of grass, roots, and other plant fibers. These strengthening or tempering additions burned away in the firing, leaving tiny holes where they had fortified the vessels.

Years after the breakthrough appearance of ceramics at Stallings Island, archeologists in the Russell studies discovered that early pottery made its way farther north in the Piedmont than anyone had previously thought. Two-hundred-seven sherds of fiber-tempered

pottery were unearthed in the reservoir area. Almost 70 percent of the sherds came from one site, McCalla Bottoms, in the middle of the study area on the South Carolina side of the Savannah River. Another 20 percent was uncovered nearby at Rucker's Bottom in Elbert County, Georgia, while the rest came from small clusters at seven other locations.

Organic material associated with some of the pottery was subjected to radiocarbon dating to determine its age. Results date the samples found at McCalla Bottoms to around 1500 B.C. Radiocarbon dating for two other sites examined with the same type of pottery produced readings earlier than that, but for various reasons those findings are less certain. So while pottery making may have taken place in the reservoir area before 1500 B.C., there was no substantial evidence found to indicate that was the case. Nevertheless, only a small portion of the 52,000 acres was excavated, and even with the best technology, scientists'



Figure 35: Most early ceramics found in the Russell investigations came from McCalla Bottoms, viewed here. Archeologists did not expect to find early pottery so far north.

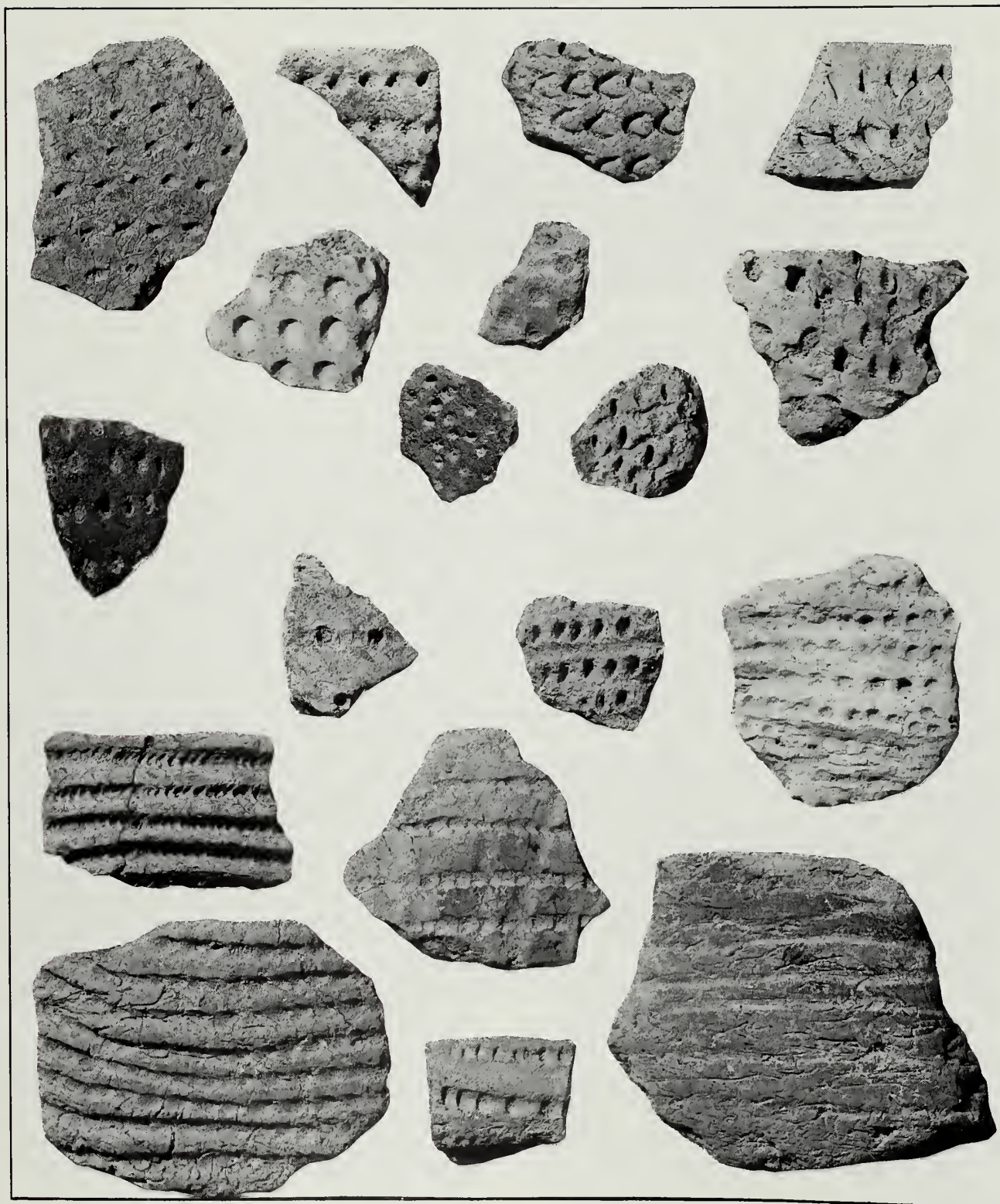


Figure 36: These ceramic sherds, some of the earliest in eastern North America, are about 3,500 years old. The decorations were made by pushing pointed tools into the wet clay.

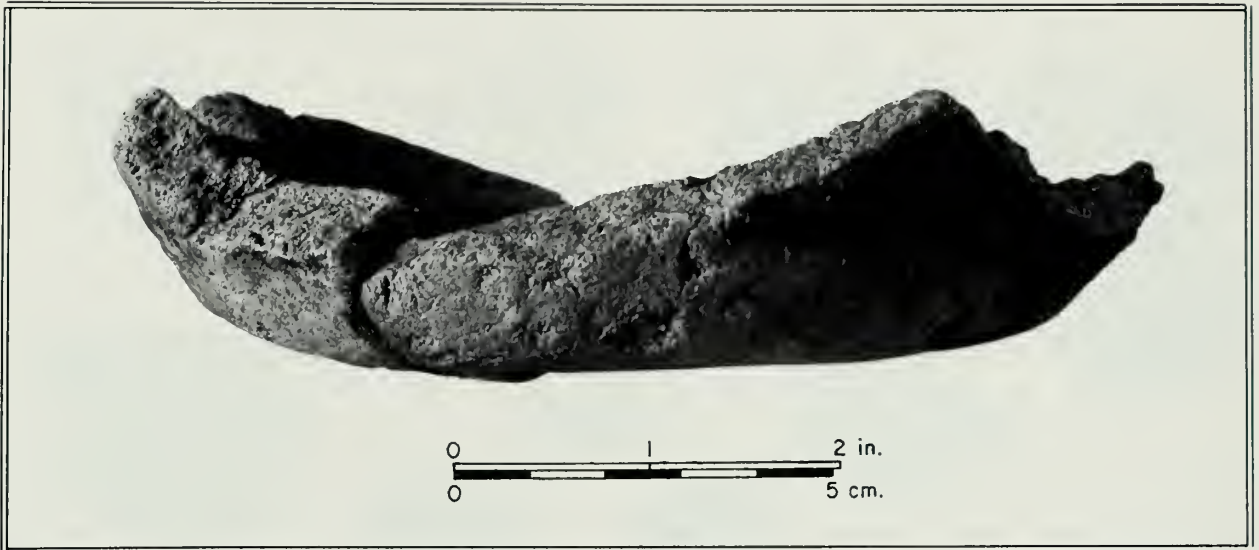


Figure 37: The base of a soapstone bowl was found at Gregg Shoals in fragments, which archeologists pieced together.

luck played a part in targeting sites rich in archeological material.

Even after people learned to mold clay into useful shapes, they continued for a time to use a much less efficient method for making containers—gouging them out of solid rock. Fragments of such bowls formed from soapstone appeared at McCalla Bottoms mixed in with potsherds.

Novice potters working with clay likely copied the shapes of their creations from the rock bowls, which were the result of a laborious effort that began with carving a crude toadstool outline in a boulder. The relatively soft soapstone was the preferred rock, but even so, freeing the contour of a container required persistent, forceful assault with a mallet. Soapstone boulders with the unfinished bowl still imprisoned in the rock divulge the technique, as well as the difficulty some had with the process. The final step was to chisel out the center of the detached hunk until a hollow was formed, resulting in a serviceable, but cumbersome and heavy vessel.

Gradually, use of the rock containers declined and pottery began to dominate. Use of supposed boiling stones also faded, although some continued to emerge at excavations dated to the period.

Most prehistoric potters were probably

women, if contemporary analogies of preliterate people are accurate. Men, experts assume, were the primary meat hunters, while women gathered mostly plant foods and prepared much of what was eaten. Exceptions to the role playing were likely, considering how imperative cooperation and versatility were to mutual survival.

Assuming, however, that generalities about male and female behavior are fairly accurate, a woman just starting to make pots would have started by gathering clay from the river banks. Next she collected water to add to the clay until it became malleable like paste. Then she used her fingers to mold the desired shape, and perhaps also smoothed away rough spots with a flat stone. (Soon potters learned to roll clay into skinny coils and to pile them on top of each other to form pots.)

Once the potter finished shaping the form to her satisfaction, she set the pot in the sun to dry thoroughly. Then came the last, and most precarious step. If her handiwork was to be strong and useful, it had to be subjected to a test of fire.

The potter closely arranged kindling and logs around the pot, then set them ablaze. She kept the fire roaring hot for a long while until only embers were left, then she finally learned if all her efforts had been worthwhile or futile.

Tests Of Time

When cosmic rays hit the earth's atmosphere striking nitrogen atoms, radioactive carbon, called carbon 14 (C14) is created. Carbon 14 is unstable, and eventually, through the process of radioactive decay, becomes nitrogen again. Plants, by breathing in carbon dioxide, and animals, through the food they eat, absorb carbon 14, maintaining a relatively constant ratio of carbon 14 to normal carbon within their tissues. Once the plant or animal dies, the intake of carbon 14 ends, and what remains breaks down into nitrogen at a constant rate. Because the loss of carbon 14 is measurable, scientists can estimate how old once-living things are by the amount of carbon 14 they contain. For example, in about 5,730 years, the amount of carbon 14 left in organic remains drops to half of its original level, then, in about 11,460 years, decreases to one-fourth its original level.

Measuring carbon 14 in bone, wood, charcoal, or other remains requires complicated chemical processes to purify the specimen and then transform it into a gas or liquid, which is then measured for the amount of carbon 14 present relative to more stable carbon. Through this process, scientists can estimate the age of a specimen up to about 50,000 years. Some advanced laboratories can extend the dating to 100,000 years.

Errors can occur in the test, however, to alter the date, sometimes by hundreds of years, identifying the specimen as older or younger than it actually is. Consequently, archeologists prefer having a number of objects from a site carbon dated for comparison. They also examine where the carbon-dated materials were found to see if artifacts known to originate during a particular era were nearby. Studying the soil layers above and beneath a carbon 14 tested specimen to determine which period of artifacts preceded and followed it, is also useful.

Other methods are also helpful to determine dates. Radioactive potassium is examined, for example, in volcanic material because it eventually reverts to argon. This test works best when researchers are looking for dates millions of years ago because half of the radioactive potassium will break down in about 1.3 billion years.

To learn when a ceramic piece was made, thermoluminescence dating is useful. Clay is heated above 380 degrees centigrade, then the light emitted and radioactive material present are measured to learn when the clay was first fired.

Fission track dating is the study of submicroscopic damage trails left by the decay of uranium atoms in volcanic materials, glasses, and other substances to learn how old they are.

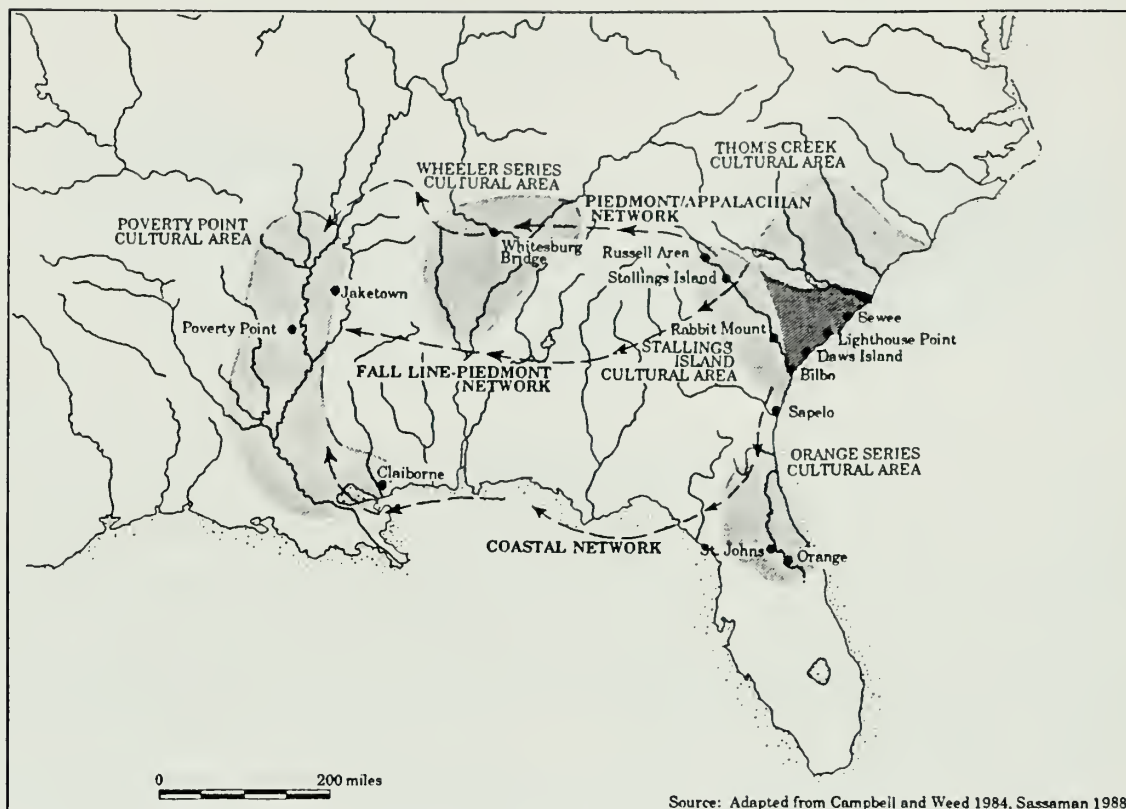
Most of these techniques are relatively new and continue to be refined. They are also costly. Dating specimens, however, doesn't always require an advanced degree in chemistry or great expense. Thomas Jefferson, sometimes called the Father of American Archeology, was among the first to suggest another dating method still used today—studying tree rings. Called dendrochronology—which is the comparison of changes in annual tree rings caused by climate—the technique has proven especially helpful in some regions such as the arid American Southwest where wood has helped date old Indian structures.

Sometimes the intense heat cracked a pot, rendering it useless, but if it remained intact, the jeopardy was worth the resulting creation, a durable vessel which eased life a little.

Eventually, the potter learned, perhaps from another woman some distance away, how to enhance the beauty of her clay wares. Using a sharp stick or piece of river cane, she fashioned a design near the rim of the wet pot before setting it out to dry. To do this, she pushed the stick point into the clay, leaving a

small indentation called a punctation, then she briefly dragged the stick across the clay, etching a thin line between the first punctation and the one she made next. She repeated the pattern until the entire rim was decorated.

At McCalla Bottoms, ceramics displaying this punch-and-drag style were common, while nearby at Rucker's Bottom, potters preferred rows of punctations. Archeologists are unsure why the difference developed. Possibly one style preceded the other, just as certain spear-



Map 8: Knowledge of pottery making could have spread into the interior of the country by three different routes, as indicated by the arrows.

point designs were used earlier than others. Or, maybe the two embellishments simply reflect the originality of individual artists.

Among the earliest ceramics found in the reservoir boundaries, 84 are undecorated and 123 have punctations. In comparison, pottery fragments discovered at Stallings Island have more complex geometric patterns. Perhaps, as David Anderson suggests, the gathering of different populations there stirred a need to exhibit ownership or group affiliation.

The manner and the direction in which pottery-making spread interests archeologists. Most think down-the-line trade was the norm. Under this theory, one band of people traded ceramics and shared the method for making it with neighbors in an adjoining territory. The neighbors, in turn, bartered the knowledge with people living on their other border, and so on, until the technique saturated the area.

People were making pots along the St. John's River in northern Florida soon after ceramic use began, and within about a thousand

years, the innovation had reached the Poverty Point culture in Louisiana, and spread into Alabama and Tennessee. With the unexpected find of fiber-tempered sherds in the Russell area, authorities began to consider the possibility that the use of pottery originally moved northward along the Savannah River into Tennessee and into the country's interior. But Kenneth Sassaman proposes instead a path spreading west from the Savannah River along the fall line to the Chattahoochee River, then south to the Gulf of Mexico coast, then west again, and eventually north into the interior. Yet another theory suggests that pottery disseminated from the mouth of the Savannah along the coast. All three routes are potentially accurate.

It's also possible that people carried knowledge of pottery themselves into distant territories as they explored on long trips. Just how far Late Archaic people roamed is uncertain; nor do we know how big their territories were. Two conflicting views exist. The pre-

dominant opinion is that territories shrank; the other is that they enlarged, and that groups traveled extensively in different seasons, perhaps all the way from the mountains into the Coastal Plain.

Certainly, ideas and trade items traveled great distances. Red jasper beads from Louisiana show up in Tennessee and in Florida's northern panhandle, and soapstone artifacts have surfaced in Louisiana far from any source of the mineral.

Within the reservoir area, some stone artifacts were made from chert from distant sources 100 to 150 miles away, in extreme northwest Georgia and eastern Tennessee. Most chert tools, however, were formed from rock sources near the area. Archeologist Jerald Ledbetter discovered that there was chert available nearby in a thin zone running across the Piedmont from south of Athens, Georgia to near the Savannah River.

The diversity of materials used in reservoir area artifacts is a strong argument for the idea that trade was conducted with outsiders. At

McCalla Bottoms, for example, about 63 percent of the spearpoints were made from metavolcanic, slate-like rocks, ten percent from quartz, and about 26 percent from chert.

But reaching any conclusions about life within the study boundaries was difficult because of the absence of heavy garbage staining. The lack of such midden staining implies that McCalla Bottoms and other Late Archaic sites nearby, where pottery was present, were not occupied for long.

The heavy artifact concentration found at McCalla Bottoms, then, could signal that this was a temporary gathering place for separate groups who normally lived apart in the Piedmont. Or, McCalla Bottoms could have served as a camp for visitors who moved into the area from lands closer to the coast. Maybe all the pottery unearthed at McCalla Bottoms and throughout the Russell area was left by such visitors from the Coastal Plain.

Whatever its genesis, once the idea of pottery took root, enhancing the invention was inevitable. The next improvement developed in

Choosing The Best Rock

Spearpoints had many other uses besides hunting during the Late Archaic years, and toolmakers became more selective in picking the best rock for a particular task. For example, metavolcanic points found in the Russell area were frequently rounded on the edges, a sign of abrasion. This indicates they were used to cut soft objects like animal skins or plants which caused some friction, but not as much as wood or bone would have caused. Metavolcanic rocks were also formed into drills and into the thinnest, flattest points, ideal for slicing and fine-cutting uses like deboning and scaling fish.

After studying the many lengthwise breaks on quartz points, archeologist Michael Alterman concluded that people preferred quartz for cutting and sawing hard objects such as bone, wood, and other tough plant fibers. He also found that quartz points from this era vary the most in size, reflecting differences in stone quality. Quartz was also popular for making scrapers. The related mineral, quartzite, was used in crude tools that often showed signs of hammering or battering.

Hunters preferred larger spearpoints when they were away from basecamp for long stretches because the bigger sizes allowed much resharpening. Often, the largest points were made of metavolcanic rocks, which were comparatively easier to shape than quartz. Points made of chert were also resharpened often, with some reworked so much that they became quite small.

Most Late Archaic spearpoints have wide stems, many of which are square. Some stems, however, expand slightly at the base, while others contract. Many odd, ill-formed points also were used. The best-known spearpoint of the time was the Savannah River Stemmed, also called the Broadpoint because of its large blade. Savannah River Stemmed points have appeared along the East Coast as far north as New England.



Figure 38: This Savannah River Stemmed spearpoint, found broken, is about two inches tall.

South Carolina, south and east of the reservoir. A potter, again perhaps by accident, mixed some sand with the clay and water, resulting in a strengthened vessel. Sand-tempered pottery eventually moved into the reservoir area. Local artists, however, continued to cling to their old designs, decorating with punctations, aligned in rows and randomly placed, and with punch-and-drag motifs.

Before the discovery of sand-tempered pottery, ceramic dishes were quite fragile. Fiber-tempered wares, after their own firing, could be heated only by placing them on red-hot rocks. Otherwise they would crack. The reinforced sand-tempered pottery, called the Thom's Creek Series, could be placed directly into the fire.

Archeologist Albert Goodyear conjectures that the transition from roasting foods, to using boiling stones, to cooking in pots placed on hot rocks, to cooking in pots directly over fire, resulted from growing population and diminishing territories. The concomitant decline in resources, he theorizes, forced im-

provements in cooking efficiency. With stews and other foods cooked in pots, calories and nutrients were stretched and enhanced. The resulting better diet improved chances of survival for the young.

Longer stays at one location also fueled the birth rate, a phenomenon long documented by anthropologists and archeologists, who have learned that when wandering people settle down their population soars. But population growth was possibly not as dramatic in the Piedmont during the Late Archaic period as it was in the Coastal Plain. Therefore, there was probably less pressure on resources in the Piedmont, which may help explain why so few reservoir sites contained significant amounts of early pottery.

Spearpoints for the Late Archaic period show a great deal of variety in size and shape in the Russell area. Some are less than an inch long; others surpass three inches. There were also many other Late Archaic artifacts discovered including a full-grooved ax found at Harper's Ferry in Elbert County, Georgia. The groove was chiseled towards the rear of the stone ax to help hold the wooden handle in place.

At Rucker's Bottom, repeatedly occupied for short stays, Late Archaic inhabitants used much bigger, boulder-sized, pitted rocks than before. They continued to grind plant foods on small, pitted cobbles that they discarded when they moved. But they also used the bigger, pitted tools, which became site furniture of a sort that they left behind and reused on successive visits. The boulders' size provided more room for grinding the increasingly important plant foods. Another interesting Late Archaic



Figure 39: A Late Archaic stone ax.



Figure 40: Late Archaic people used spearpoints of varying shapes, sizes, and rock types.

discovery came in the form of teeth detected at Gregg Shoals, which turned out to be canine, the first proof that dogs were part of local prehistoric people's lives. Scientists estimate the animal weighed between 25 and 30 pounds. The only sign of possible shellfish use for the period in the Russell area was also found at Gregg Shoals. But the evidence was scant—only one mussel shell. There were no mounds of discarded shells like those found further to the south.

By 1000 B.C., the huge assemblies at places like Stallings Island for feasting on freshwater mollusks were becoming a thing of the past. Possibly a change in the climate led to their end. Some scientists say this was a time when glaciers advanced slightly and sea levels fell a few feet, not as far as during the Ice Age, but enough, perhaps, to alter the availability of shellfish along inland rivers and to diminish the run of migratory fish.

Some estimate that only several thousand people lived in Georgia at the time. While their numbers perhaps weren't huge, they apparently spent much of their time near big rivers, depending on ten percent of the land. Archeologist Glen Hanson suggests that population expansion put too much pressure on re-

sources, causing the Late Archaic system to collapse. In some parts of the East, famine, increased territorial friction, and warfare possibly dominated existence. Clearly there was unrest in some places because period human burials in Indiana and Kentucky have revealed spearpoints inside skeletons.

The beginnings for the next cultural tradition, the Woodland period, actually started before the decline of the Late Archaic era with the growing dependence on plant foods. People were eating more and more seeds from wild plants, and couldn't leave such a vital foodstuff to chance alone. Late Archaic people learned to save some seeds, plant them, then protect the resulting vegetation until it also yielded something good to eat. The concept of domesticating corn, beans, and possibly other plants eventually filtered into eastern North America from Mexico.

Tending plants became widespread by the Woodland period, and there were also other significant changes. Potters, for instance, grew markedly in their talents. But especially fascinating was the emergence of a mysterious, sometimes eerie ceremonialism that left inexplicable marks on the landscape that last to this day.



Figure 41: White-tailed deer were important to early people. Hunted for food, their hides were worn as clothing; their bones carved into pins and awls; their antlers made into tools.

Chapter 7: Grains of Pollen, Mounds of Earth

1000 B.C. to A.D. 900

The Woodland Era

Experience taught the doe to be cautious when she browsed the tender shoots of grass and plants. At any moment, what appeared to be a safe place free of predators could transform into a dangerous trap. She had successfully eluded capture before by leaping high and fast out of reach, her white tail raised like a warning flag to any other deer nearby. Few creatures could match her speed, which was her best defense. Even the wily human hunters, who sometimes disguised themselves in the skins of slain deer, were no match for the doe when she ran. Their spears fell ineffectually into the bushes far behind her while she raced to the sanctuary of deep woods.

During this sunset graze, the doe paused often to raise her head and listen, but heard only the birds and usual sounds. A low whistle like the wind caught her attention too late. A deadly blow struck her in the chest, but still she couldn't see where the danger came from, because this time, the hunter was neither close nor using a spear. The fatal weapon was an arrow unleashed from a hiding place many yards away.

* * * * *

The pivotal invention of the bow and arrow came during the Woodland tradition, which lasted from 1000 B.C. to A.D. 900. This breakthrough—which probably took place towards the end of the period, though some think it happened much earlier—gave hunters invaluable room between themselves and their prey, increasing their success considerably.

Initially, Woodland hunters used weapons tipped with stones in the shape of isosceles triangles with two equal sides and no stems. Called Yadkin Triangulars, the projectiles are

considered to be the first arrowheads by some experts, while the majority classifies them as spearpoints. Marked indentions on the base of many Yadkin Triangulars make them resemble miniature boomerangs. Ninety percent of the Yadkins found in the reservoir area were made of quartz, indicating hunters didn't range far to obtain the rocks to make them.

Altered weapons were only one of many differences separating the approximately 2,000 years of the Woodland culture from the Archaic period. Some changes were logical progressions from earlier customs, but other developments are shrouded in a mystery that may never be explained.

Growing appetites for plant foods, created by increasing populations and the need to exploit all available food, led to gardens. Big-faced sunflowers were among the original favorites for cultivation. Hardy and prolific, the sunflower yields many nutritious seeds, which early people probably crushed for cooking oil. They also grew squash. Like the sunflower, squash produces abundantly with little human effort. Prehistoric gardeners also likely tended plants that today are considered weeds, including sumpweed and chenopodium, a plant in the same family as spinach and beets.

Knowledge of ancient Southeastern agriculture comes from analysis of recovered seeds and fossilized pollen. Sunflower and sumpweed seeds, for example, collected from various sites from the Woodland period, tend to be bigger than wild seeds, and uniform in size, indicating prehistoric growers purposely saved them for their superiority and replanted them. In fact, prehistoric sumpweed seeds are

two to three times bigger than those of today, suggesting that without human intervention the larger-seeded plants died out.

While any harvest would have been a welcome addition to a family's food store, Woodland people were probably far from reliant on cultivation. They continued to forage among the wild plants and nuts still widely available, as well as to depend on the animals hunters could kill.

But researchers in the Russell Reservoir area did uncover definitive evidence that people during this time grew their own food. For example, in their study of soils at a Late Woodland site called Simpson's Field in Anderson County, South Carolina, archeologists uncovered a piece of squash rind and two grains of fossilized pollen suspected to be from squash plants—persuasive evidence of agriculture. Fossilized pollen from sunflowers and chenopodium also surfaced, although researchers couldn't be certain that these resulted from cultivation. Nor could they be sure if a single, badly corroded grain of pollen came from corn. (Corn didn't really gain importance until the waning years of the Woodland tradition.) Signs of other possible foods included shells from white walnut, hickory, and acorn, and seeds from maypop, persimmon, and grape.

The people of Simpson's Field left a clearer indication of another innovation associated with food—an oven so deep in the ground that an average-sized woman could stand inside and have only her head be visible. A dark stain of charcoal alerted searchers to the oven's existence. The oven, they estimated, was about five feet wide and four-and-a-half feet deep. Dean Wood, who directed the excavation, speculates, based on later recorded incidences, that to use the oven, people layered wood generously in the pit, set it afire, then tended the blaze until the flames reduced to red-hot coals. They put rocks heated in a fire above ground into the pit next, to radiate more heat. Then they added moistened leaves and grasses, and on top of them placed the



Figure 42: Yadkin Triangulars were used in both the early and middle years of the Woodland cultural era.

meat. They then carefully covered the meat with more insulating vegetation.

The last layer they added was dirt, heaped on until the entire pit was covered, trapping the considerable heat generated by the coals and rocks. Sometime later, they removed the dirt and leaves and ate the now-baked food.

Researchers concluded that the oven was much used because charcoal, ash, and clay had accumulated over a foot thick in the bottom. Three more ovens, none as deep as the first, were also discovered nearby, suggesting either large-scale communal cooking or perhaps one family digging different ovens over time.

The Simpson's Field site, located on a terrace about 130 yards from the Savannah River, is also thought to reflect another new development—a small village of some duration. One-hundred-nine postmolds, most of them probably from the Woodland years, were found. The multitude of stains, combined with other findings, signaled that dwellings once existed.

Although not firmly proven, Woodland shelters appear to have been intended to last a good while, in contrast to earlier, perhaps less permanent, Archaic structures. Frames for houses were still formed with upright tree

posts arranged in an oval or circle, but were now bolstered with cross beams or rafters. And the posts no longer curved inward at the center, but stood upright to form walls. Cross beams supported a sturdier, cone-shaped roof, while the whole structure was covered with protective bark or thatched grass.

Further indications that people once lived for a year or even several years at Simpson's Field came with the unearthing of two human burials, the oldest discovered in the Russell studies. Decomposition was so extensive that researchers could determine only that one was a child about seven and the other an adult. Both were found near the outline of a possible dwelling.

The graves showed no sign of the funeral ceremonialism that often marks Woodland burials, and experts are unsure why. In fact, the reservoir studies curiously yielded little evidence that residents were affected by many of the startling changes in human behavior tak-

ing place nearby and across the country.

In Louisiana, for example, at Poverty Point, Late Archaic people began to create some of the first earthen mounds. Using only baskets, they carried tons of dirt, which they steadily unloaded until the accumulation formed sizable hills, up to 70 feet tall.

Besides mounds, the Louisiana site features dirt formed into six octagon-shaped ridges encircling an area about two-thirds of a mile wide. Prehistoric people built their houses atop the ridges, and cut pathways through the ground below to create an orderly pattern like the rays of the sun.

Mounds were built extensively throughout the eastern United States during the Woodland period. Some were topped with religious temples; others entombed the remains of the dead; while the purposes of still other mounds are lost.

Cone-shaped mounds were erected in southern Ohio by participants of the Adena culture

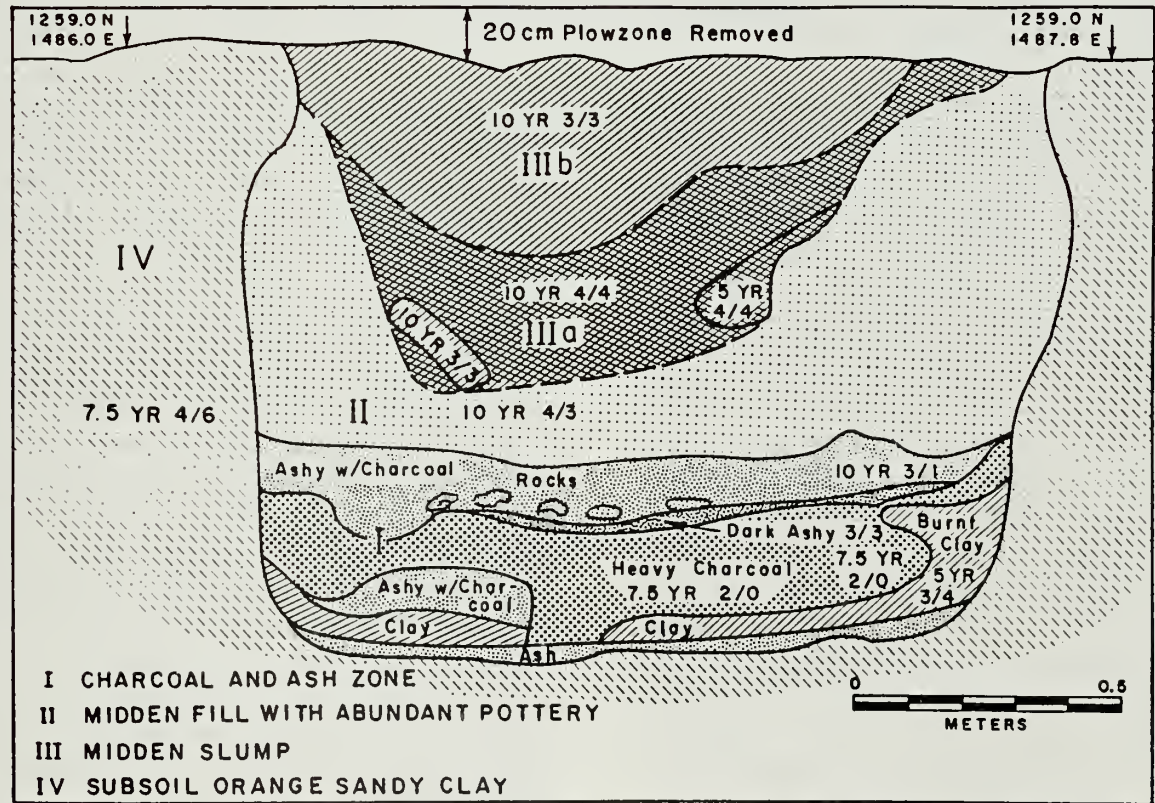


Figure 43: Various soils from the Woodland earth oven were numbered according to the Munsell color chart, a scientific method for exactness. Concentrations of charcoal and ash lined the oven bottom.

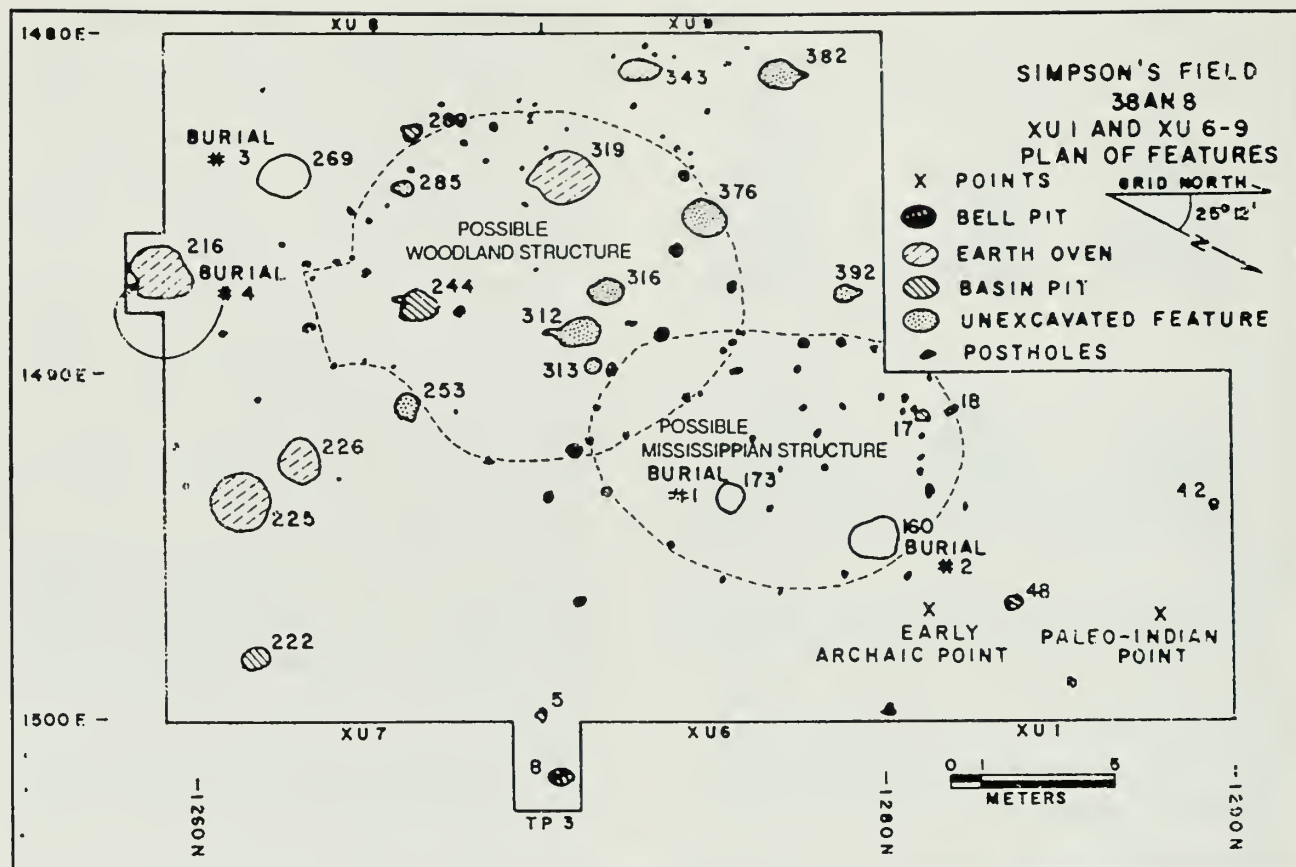


Figure 44: A possible Woodland house and one from a later era are shown in a drawing of Simpson's Field. Two Woodland burials, numbered 3 and 4, were found, along with two others from a later time.

that began about 500 B.C. These mounds revealed burials with stone tablets carved with elaborate drawings of predatory birds and geometric designs. Fragments of suspected animal masks were also found in the graves.

Some of the Woodland dead in Ohio were interred in log tombs; others were placed in buildings that were likely intentionally burned; and still other corpses were burned in clay basin crematories dug in the ground.

The Adena culture, which lasted 300 to 500 years, was eventually overshadowed by a much farther-reaching development called Hopewell. The Hopewellian culture, which began in Ohio and Illinois between 100 B.C. and A.D. 100, perhaps grew out of the Adena culture or merged with it. Before declining sometime between A.D. 400 and 500, its influence reached across many thousands of miles, including the Southeast.

Earthworks also marked the Hopewell

phenomenon. Followers in the Midwest built ridges, sometimes 12 feet tall, shaped into expansive squares, circles, and octagons that could enclose as much as 80 acres. Their dead were often accompanied by objects that must have held great value for the people who buried them. Bear teeth and glass-like obsidian from the Rocky Mountains, shark teeth and seashells from the coast of the Gulf of Mexico, and copper, probably mined near the Great Lakes, were all formed into grave goods. The people who lived in the Midwest must have traded with others for these materials, which to them must have been rare. During the exchanges, they apparently imparted the tenets of their burgeoning ceremonialism.

Although the mound building and ceremonialism associated with Hopewell became widespread, reaching into parts of the Southeast, the foundation of the beliefs is unknown. How individuals who once lived a vigorous, nomad-

ic life, found time to build such enormous mounds is a point of conflict. Some contend that agriculture provided ready food, giving people more free time; but others insist that farming was only moderately important. They argue instead that people learned to store food effectively, and that ample resources allowed more hours for other activities.

There were probably religious leaders or priests in the Woodland era responsible for properly shepherding the spiritual interests of both the living and the dead. The sites where they performed these functions became ceremonial centers. Trade of rare materials for spiritual purposes was likely among the centers, but it's possible that everyday staples were not exchanged, according to some experts.

In southwest Georgia, such a ceremonial focal point developed at Mandeville near the Chattahoochee River. A flat-topped mound which once held a temple and a cone-shaped burial mound attest to the strong Hopewell influence at Mandeville.

Further north in a western corner of Georgia near Chattanooga, Tennessee, a series of small, limestone and earthen burial mounds at a site called Tunacunnhee similarly reflect the ritualism. Grave goods at both places resemble the items favored in the Midwest. Among the objects found were copper panpipes, not unlike the musical wind instruments depicted in ancient Greek art. The panpipes have several short, hollow tubes of varying lengths connected in a row. Platform smoking pipes were also discovered that rest upright on squat, rectangular bases, with the pipe bowls sometimes sculptured into animal shapes. Cut mica and prismatic blades also were uncovered. At Mandeville, copper beads and a clay figurine of a woman were found.

Ear adornments, called earspools, found at both sites indicate what must have been an excruciatingly painful practice of decorating the human body. To wear them, the earlobes were cut open and stretched widely to accommodate wood, stone, or copper ornaments shaped like thread spools. Once inserted, the spools likely became permanent, with skin growing over them, just as a pierced ear today will heal to cover the incision.

The major Southeastern Hopewell sites stretched in a broad arc around the Russell Reservoir area, from Mandeville in southwest Georgia, into eastern Tennessee and western North Carolina. Yet, the enigmatic rites that

were affecting so many people over such a wide area apparently exerted little, if any, influence within the study boundaries.

There were intimations, however, that people farther south along the Savannah River were practicing ceremonialism. Pottery, some painted red, thought to reflect ritualistic use, and decorated similarly to ceramics found at Hopewellian ceremonial centers else-

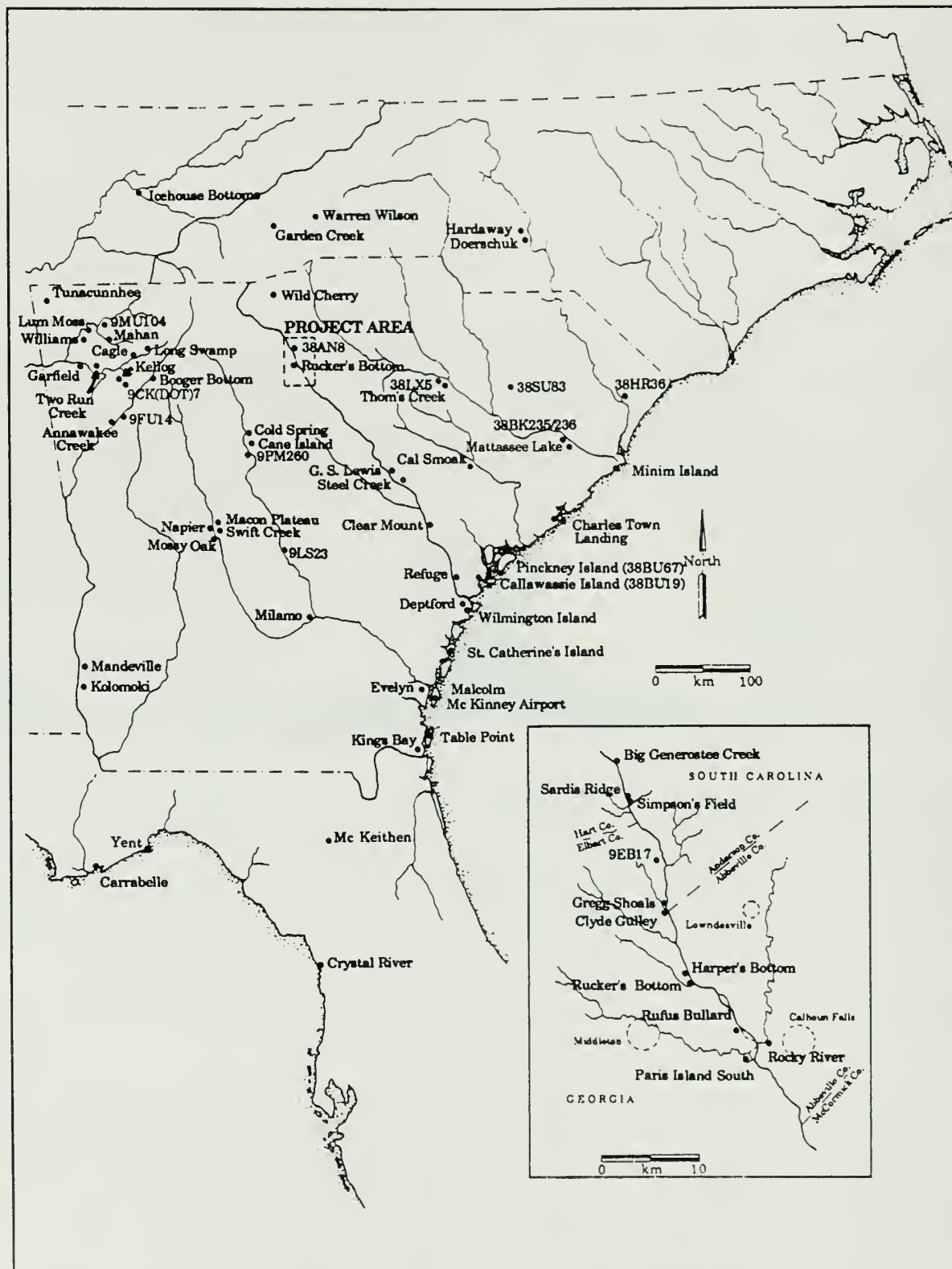
where in the East, was discovered on the Savannah River Site near present-day Aiken, South Carolina, at the G.S. Lewis archeological site.

Other curiosities of the Woodland era again involved accumulating staggering amounts of earth and other materials to form well-defined shapes, often in the forms of animals. Some of these conceptions reveal their designs only through an aerial view, often impossible for their builders to achieve without climbing tall trees. But erect them they did, even though they would have had difficulty seeing the full extent of their accomplishments.

In Putnam County in central Georgia, for



Figure 45: Platform pipes like this one from the Tunacunnhee site in northwest Georgia were common during the Woodland period.



example, thousands of stones are piled into the shape of a gigantic bird. Popularly known as Rock Eagle, the formation might represent a buzzard or perhaps a mythical bird. A second formation, quite similar to Rock Eagle, exists nearby in the same county, but is less well known. And in southern Ohio, a colossal serpent of dirt averages 20 feet wide and five feet high and stretches 730 feet long. The formation has intrigued many who have flown over the land and seen its curling shape.

Understandably, these and other unusual relics have roused far-fetched speculation and served as the basis for legends. Rocks arranged in a low wall near the top of a mountain in north Georgia, for instance, are believed by some to be the handiwork, not of prehistoric Indians, but of a prince of Wales. Prince Medoc, according to the tale, was an experienced sailor who abandoned his native land because he was disgusted by infighting over the throne among his relatives. He sailed to the Gulf of Mexico and landed near Mobile, Alabama, from where he and his followers headed inland, ultimately reaching Georgia. An attack by natives led the prince and his men to build the stone "fort" atop the mountain. When they lost the battle, supposedly he and his followers fled north toward Indiana.

While there may indeed have been a Prince Medoc, his disappearance from the British Isles in 1169 apparently came hundreds of years after the erection of the rock structure at Fort Mountain. Furthermore, the wall, only a few feet tall at its highest point, would have been an ineffective defense. And there is no archeological record in the Southeast indicating that European explorers arrived in the area before the Spanish did in the 1500's. More likely, Woodland people performed rituals at the mountain wall and at other similar places in the East.

If they were removed from their contemporaries' religious customs, the Woodland era residents of the Russell area did see many changes. At the beginning of the period, in about 1000 B.C., what the residents apparently

didn't do was as notable as what they did. Early Woodland people, for example, ceased almost all trade and travel to other regions, and used local quartz for their tools, rather than imported minerals. They probably were fairly mobile within the reservoir area, though, because no heavy stains or major storage pits were found to indicate long-term occupations.

Population in the area possibly declined during the Early Woodland era, with people moving away to an, as yet, undetermined region. But while fewer people may have lived within the study boundaries, numbers were swelling along the Atlantic coast where a new type of ceramics called Refuge pottery emerged. Artists there made tooth-like projections on the sides of vessels and impressed designs of parallel lines in the clay. Many authorities think that even earlier, during the Late Archaic era, coastal dwellers began shaping a culture that became distinctly different from the ways of people in the Piedmont.

Within the reservoir boundaries, many years passed from pottery's first use in the Late Archaic period well into the Woodland years before it became essential to daily life. While people commonly made clay wares, they were not dependent on them until much later.

Yet, the stylistic techniques potters used continued to transform. The simple punch-and-drag motifs made with a sharp stick, favored by Archaic potters, gave way to far more elaborate decorations. By 600 B.C., and perhaps even earlier, ceramists used fabric wrapped around sticks and paddles to imprint designs in clay. Their ingenuity and dexterity in weaving these fabrics were considerable because they used only plant fibers, and fingers were likely their only looms.

None of the fabrics were found in the Russell excavations, probably because of their susceptibility to decay. But even earlier weavings have been found in Archaic human burials in Florida at the Windover bog. And in Salt Cave in Kentucky, woven slippers from

the Woodland period escaped deterioration.

Some 50 different early Woodland era locations within the reservoir area disclosed pottery decorated with fabric impressions called Dunlap. (Archeologists name ceramics based on the tempering and texture of the paste, the designs, and geographical locations where they are found.) Other pottery uncovered in the reservoir area may have achieved a fabric-impressed look by being formed inside a basket. Prehistoric basketry from the era has been found in the eastern United States, at Salt Cave in Kentucky, for example, but none appeared in the reservoir studies. That doesn't rule out its existence, however. The local people probably weaved baskets and possibly also carved intricate wood art. Wood, like baskets and fabric, rarely surmounts damaging environmental effects over thousands of years. Carvings, however, have been found in other areas in the East, so again, a precedent exists.

By the middle Woodland years of 300 B.C. to A.D. 500, population possibly grew substantially near the upper Savannah River. But mobility among the inhabitants was still common, possibly dictated by seasonally-available food at different locations.

Pottery also became more important. Potters used coarse sand and crushed rock, called grit, to temper the clay in wares known as Deptford. Some Deptford pots were plain. Others were embellished with parallel lines called simple stamping, or with check stamping resembling tiny waffles. Both of these distinctive patterns were first carved in paddles then pushed into the clay.

Gradually, the preference potters showed for rough tempering grit declined and they used increasingly finer sand. The potters' skills were also refined; some grew so adept at smoothing the clay and at using such minute particles of sand that the tempering is practically invisible. These later efforts, named Cartersville pottery, initially were plain or bore the same lines and checks as the Deptford styles. But for some reason, the tiny checks

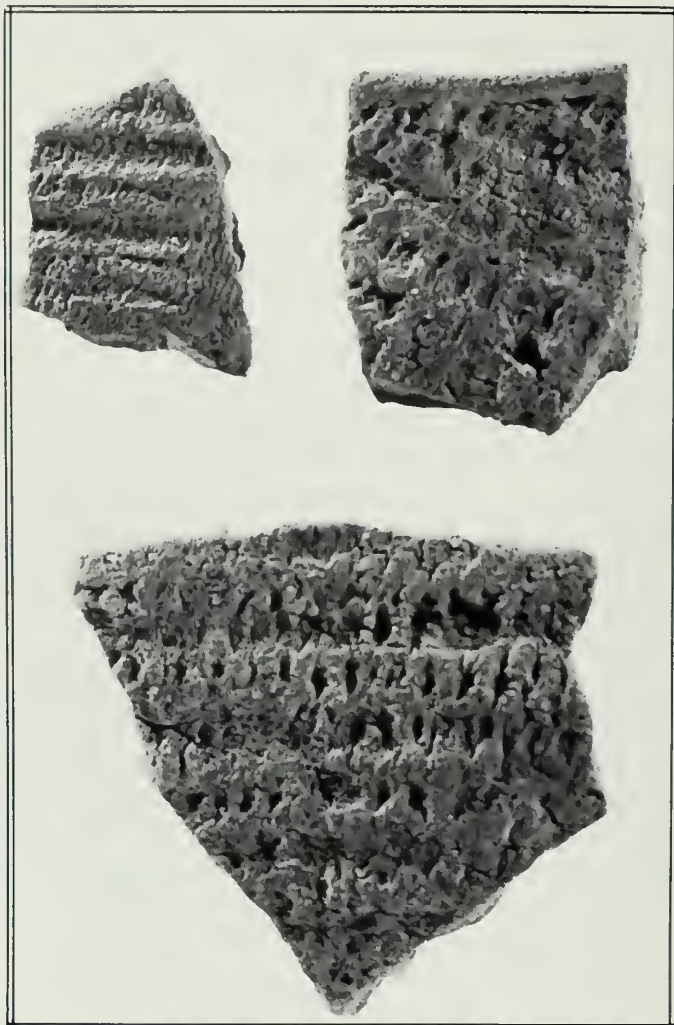


Figure 46: Fabric marked pottery appeared during the early Woodland era. The designs were possibly made with baskets or woven fabric.

fell out of favor, until, by the end of the middle Woodland and into the late Woodland era, the only decorations on Cartersville pottery were the stamped parallel lines and a brushed look created by a new method. To create this newest look, the potter ran strands of grass or straw across the damp pot. Reservoir area potters may have also used fibers wrapped around paddles, which they pressed gently into the vessels, to create the brushed look.

Researchers found much persuasive data suggesting housing in spots where Cartersville pottery surfaced. At Harper's Bottom in Elbert County, for example, archeologists detected

Where Do Theories Come From?

How do archeologists develop theories about human settlement patterns and social systems? There are many different ways. For example, when any artifact is found, its location and what is nearby—its context—are noted. Suppose a number of sherds are found representing many large jars. This suggests a spot that may have been used for storing food. Numerous plant remains among the sherds strengthen this hypothesis. If signs of hearths, animal remains, and sherds from other ceramic vessels blackened with soot are also found, the site was probably used for cooking, and the theory that the jars were for storage is further substantiated.

When many spearpoints and stone scrapers are found associated with quantities of animal bones, but without other artifacts, a camp where game was butchered is suspected. If a number of the bones are from young animals, this may mean the camp was occupied after the conclusion of mating season, in spring or early summer. By comparing different sites, determining the seasons they were used, and whether they were the scene of many different activities or only a primary one, ideas form about an entire social system.

Ethnoarcheology, the study of contemporary aboriginal societies, also helps scientists understand the past. Lewis Binford of Southern Methodist University, for instance, in his research about hunter-gatherers of the twentieth century, learned that some groups changed camps often. They tended to make tools quickly from easily available rock and abandoned those tools after brief use, with little emphasis on resharpening them. In contrast, other contemporary hunter-gatherers remained in basecamps for long periods. Because they often sent task groups great distances away from the basecamp to hunt or to collect other resources, they tended to use larger tools more easily resharpened. They were also prone to choose better stone to make their tools. Such findings about people of today help archeologists draw useful parallels with prehistoric people.

The scientific method of hypothesizing, then rigorously testing theories is also important. A researcher might make a knife similar to how he theorizes prehistoric people made theirs, then actually use the knife in ways he surmises they might have. Analyzing the effect of the use on the knife blade, the archeologist looks for microscopic scars caused by cutting different kinds of materials. Another archeologist might build a hut similar to a prehistoric one, then burn it down to study what evidence might remain.

Styles of arrowheads, ceramics, and other prehistoric items changed from period to period, just as styles vary today. One of the first steps in analyzing any particular site involves carefully tallying and sorting artifacts. This process helps archeologists compare one site with another by noting the percentages of different types of artifacts. At one site, an archeologist discovers considerable amounts of pottery painted red. He also finds fairly small amounts of highly polished pottery. At a camp not far away, he locates the same kinds of pottery, but the percentages are reversed. At the second site, there is much highly polished pottery but little pottery painted red. Absent any other information, the archeologist might theorize that people at these two spots once traded with each other, and that the two groups each specialized in making one type of pottery. But there are other possibilities. For example, the same basic group of people may have lived at both sites. While they stayed at one spot, possibly they preferred making one type of the pottery. By the time they migrated to the second camp, their ceramic preferences had changed.

In developing theories, then, archeologists must examine many different bits of information to piece together extremely complex puzzles.

several signs of fired clay they thought once covered shelters. The dwellings were temporary, but their builders apparently took time to mix the clay, grass, and water known as daub to cover them.

Sherds uncovered nearby once formed globe-shaped, flat-bottomed jars that stood on four clay feet. There were stamped parallel line decorations over the bottom two thirds of

the jars and on the jar feet.

More pieces of the footed pots appeared at the Rocky River site in Abbeville County, South Carolina, excavated by Andrea Lee Novick and Charles Cantley. At the Rocky River site, the archeologists pinpointed where a middle Woodland house may have once burned. What alerted them to the possibility was a dark stain of fired clay, ash, and char-

coal on a bluff overlooking the river. Soil disturbances caused by trees, along with erosion, prevented certainty about the size of the shelter, but the charred earth measured about three by five-and-a-half yards.

Archeologists also found signs of several other possible shelters at Rucker's Bottom. Postmolds for one suspected house formed an oval about 11 yards across at the widest points. Other stains near the center of the oval indicated there were once support poles for rafters and the roof, making for a sturdy structure. A jumble of postmolds near the oval may have been the remnants of an entrance or perhaps a storage place.

Near the house were several big pits, presumably used for storage. There was also a pile of shells, and by analyzing them, scientists determined that the shellfish were harvested in late fall or spring. That finding, along with the sturdiness of the shelter, sug-

gested that Rucker's Bottom possibly served as a winter camp.

The presence of 2,000 Cartersville sherds at Rucker's Bottom strengthened a judgment that the site hosted one or more villages between A.D. 300 and A.D. 1000.

Inhabitants appear to have occupied Rucker's Bottom at the same time others were living at Simpson's Field, just ten miles away, but that isn't certain.

Interestingly, potters at the two sites used different designs. At Simpson's Field, for instance, the complex patterns of teardrops,

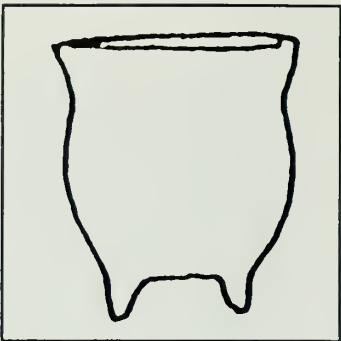
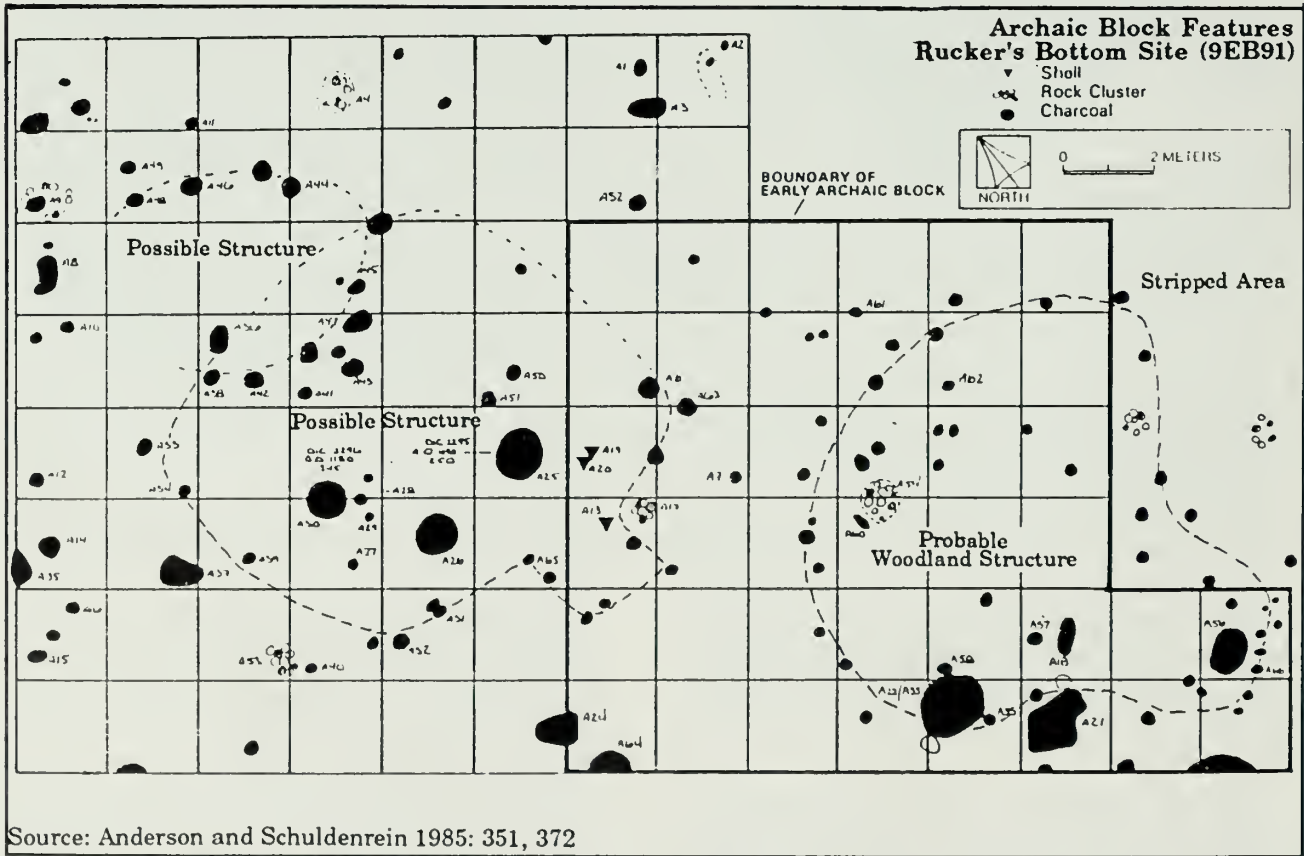


Figure 47: Pieces of four-footed jars once shaped like this were found at Harper's Bottom and Rocky River excavations.



Source: Anderson and Schuldenrein 1985: 351, 372

Figure 48: Signs of a probable Woodland era structure were found at Rucker's Bottom, a site occupied during many different prehistoric periods. The drawing details this structure and other features.

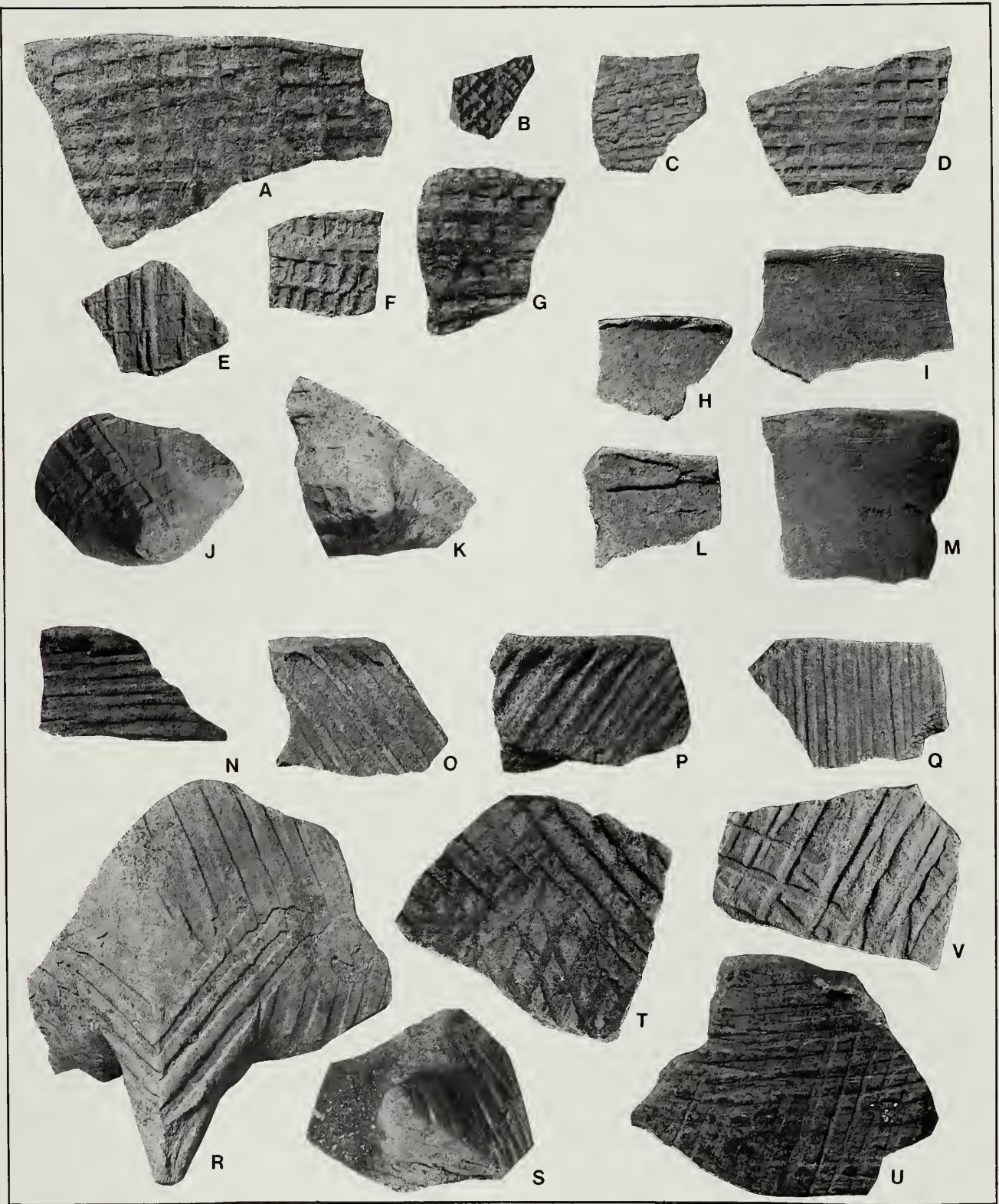


Figure 49: Cartersville designs used in the Russell area included: A-G, J & K, check stamped; H, I, L & M, plain; and N-U, simple stamped. J, K, R & S are from four-footed pots or tetrapods.

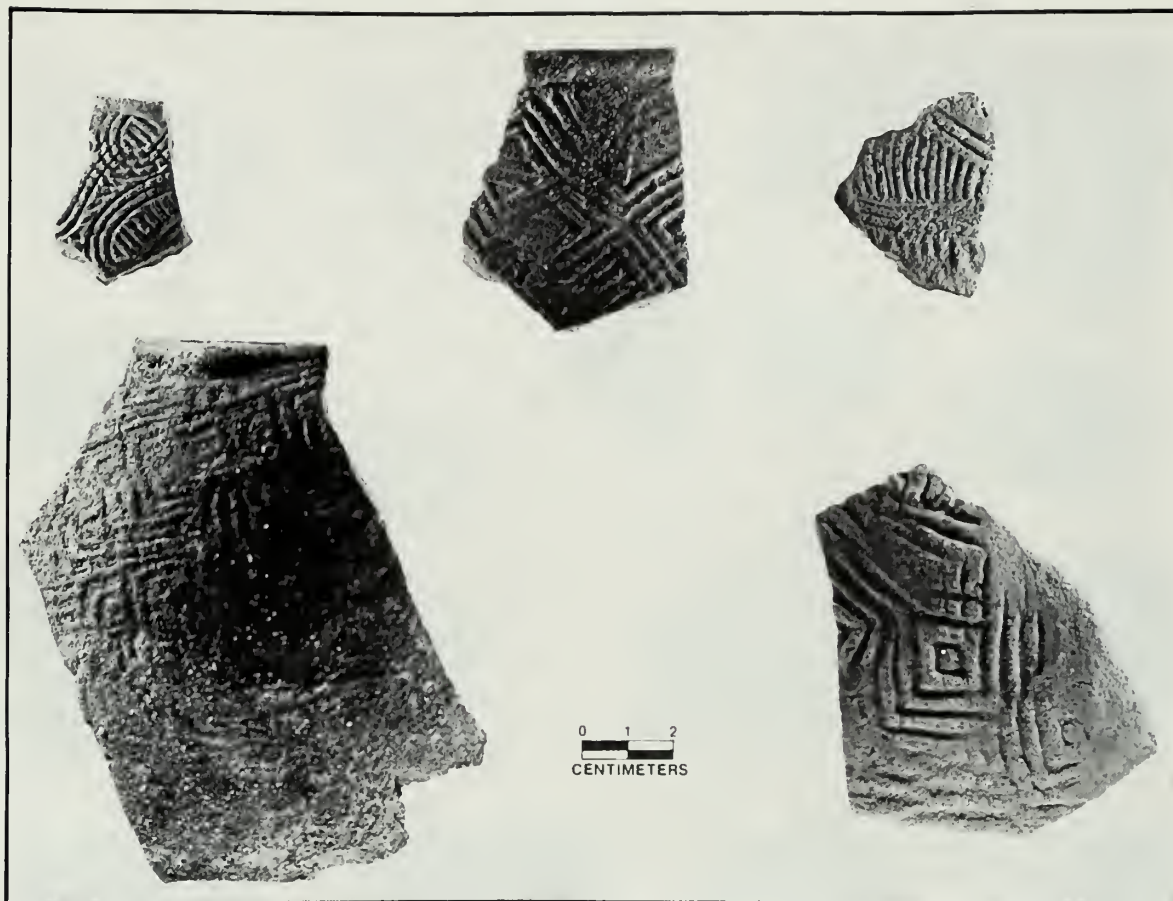


Figure 50: These complicated stamped sherds were found at Simpson's Field, about ten miles from Rucker's Bottom, where potters tended to create simpler designs.

ovals, and rectangles dominated, complex motifs called Swift Creek and Napier. Potters at Simpson's Field carved these intricate patterns into wood paddles, then stamped them into the wet clay. They used no simple stamping of parallel lines, which was the preferred method nearby at Rucker's Bottom. In contrast, at Rucker's Bottom, potters used the more complicated motifs only sparingly.

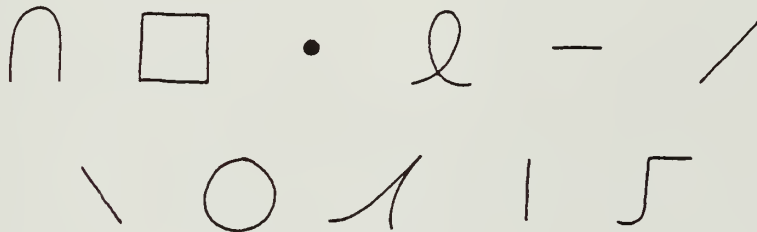
Such differences of ceramic styles found within a short distance trigger many questions. Were the people of Simpson's Field immigrants from central or western Georgia where complex designs were much more prevalent and associated with ceremonial centers and trade? Or were they simply innovators of long-standing residence in the area, more open to change than the people at Rucker's Bottom?

Whatever their dissimilarities, if the two groups occupied their respective villages at the same time during the late Woodland years, they apparently coexisted peacefully because no signs of fortifications or violence surfaced at either place.

The complex pottery decorations of Simpson's Field have been widely associated with the last 300 years of the Woodland period in north Georgia. But, according to David Anderson, the Russell studies showed that the simple stamped designs were also possibly made at the same time in north Georgia, and throughout wide stretches of South Carolina.

Researchers detected over 1,500 sherds at Simpson's Field, pieces from about 90 ceramic vessels which were scattered throughout the site. The wide-spread distribution of pottery

DESIGN ELEMENTS



CONFIGURATIONS OF ELEMENTS

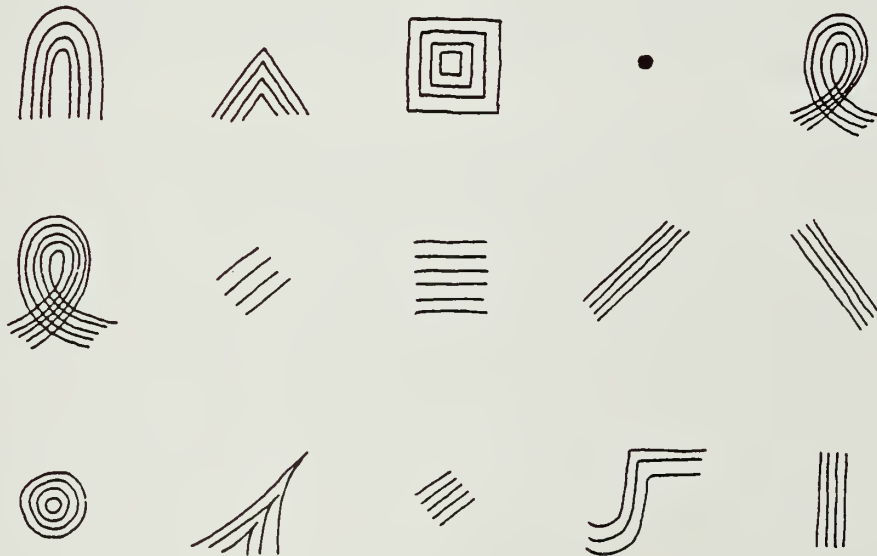


Figure 51: Swift Creek potters often duplicated simple design elements, shown in the top of this drawing, to create the complex decorations depicted at the bottom.

contributed to the view among archeologists that the spot was continuously occupied for awhile, not revisited over hundreds of years. Further supporting their conclusion were assorted storage pits spread widely over the area, suggesting that the site was once a village.

Woodland residents, like earlier Archaic people, dug shallow, basin-shaped holes to cache food. But they also dug much deeper pits, sometimes almost four feet wide and two feet deep. These pits, which were bell-shaped, bigger at the base than at the top, were used to store seeds and nuts and perhaps other foods. Such storage provided a way to tide hungry people over lean hunting and gathering times. Occasionally, a pit became a garbage dump, which was gradually filled in over time.

Research at Simpson's Field and Rucker's Bottom, along with studies at a small settlement on the Oconee River nearby, and another, bigger excavation called the Six Flags site, show that Piedmont residents adopted village life during the Woodland years. The Six Flags site (technically known as 9FU14), which is

near Atlanta, has revealed the existence of at least 20 houses and several communal buildings.

The Russell studies further helped pinpoint other aspects of the Woodland lifestyle. Researchers learned that people in the area moved closer to the Savannah River towards the end of the period, and spent much less time camped on ridges or near creeks in the uplands. Teresa Rudolph concluded from artifact analysis that camps or villages were established at junctures of tributaries and the Savannah River, and on islands in the river. The narrowness of the Savannah River valley, she concluded, made the walk fairly easy from Woodland camps to upland resources.

In contrast, other Woodland people living not far away within the Coastal Plain spent more time away from major rivers than before. Some coastal people also engaged in burial mound building, interring their dead in sand hills several feet high. Grave goods along the coast were modest compared to the lavish objects buried elsewhere at ceremonial centers, perhaps a signal of more egalitarian societies.

Adding An Artist's Touch

A potter created designs at Simpson's Field by first carving them into a wood paddle. She might etch rows of straight lines, or carve rectangles, chevrons, or squares. Depending on how she pressed a paddle with a square pattern into wet clay, whether she held the paddle straight up or at an angle, determined whether the decorations looked like squares or diamonds. Potters also carved curved lines, teardrops, concentric circles, and ovals, and occasionally filled in the ovals and teardrops with lines resembling ladders.

Potters also made different types of containers. All bowls had flat bottoms, but there were some with fairly straight sides and others with sides curving inward at the rims. There were also jars, which were taller than bowls. Many jars had straight sides perpendicular to the ground; others had sides that bulged outward, forming shoulders. Wet clay tops of jars and bowls were often folded downward, usually outward, to thicken the rims. But not all rims were folded and thickened; some were flared to one side.

Centuries later, by using measuring rings of different diameters, experts were able to learn, by examining only clay fragments, how wide pots once were. Some sherds came from big bowls with openings at the top as wide as 16 inches, while a few sherds were from much smaller containers. Several clay bottles were less than four inches across the top. The majority of fragments, however, represented jars and bowls that were generally of one or two sizes. The smaller containers' openings averaged between six and eight inches across, while the bigger ones had openings between 12 and 14 inches wide. The smaller vessels were possibly used to cook for individuals and to serve food prepared in the bigger pots. The largest pots were likely used to cook for groups and for storage.



Figure 52: A backhoe operator empties dirt into a mechanical sifting screen, which allows artifacts and other objects to be separated for examination.

Burials of female remains predominated in sand mounds on St. Catherine's Island off the Georgia coast, prompting David Thomas and Clark Larsen to speculate that women were possibly the leaders there.

There were implications, too, that some coastal people may not have buried their dead immediately. Instead, they may have kept corpses in charnel houses until decomposition was well advanced, then buried the skeletons. They may have also delayed interment of those who died while they were away on seasonal stays in the backcountry. Perhaps the survivors protected the remains until they could be returned to the coast for burial in the sand mounds.

Away from the coast, in southwest Georgia not far from the ceremonial center of Manteville, another ritualistic place developed near the end of the Woodland period. Called Kolomoki, the site reflects ceremonialism practiced along the coast of the Gulf of Mexico. Kolomoki had two burial mounds, as well as another

er mound, 56 feet tall, that likely held a temple. Clay animal sculptures there were painted red, denoting ritualistic use.

Experts think the people of Kolomoki may have practiced a particularly harsh ritual. When a revered leader died, they may have killed the deceased's close family members and servants and buried them with him.

Intriguing ceremonial practices continued after the Woodland era ended, but the ritualism that dominated at the mound centers gave way to a more secular rule. In the final, prehistoric period in the region, called the Mississippian era, inhabitants were ruled by chiefs, some of whom were quite powerful, holding sway over miles of territory. Mississippian people became more dependent on agriculture, created intricate art, and frequently lived in larger, more permanent towns protected from attack by defensive ditches and fences. These were the people who made first contact with Europeans, often with disastrous results.



Figure 53: The last Southeastern prehistoric people sometimes held important ceremonies in earthlodges. Ocmulgee National Monument in central Georgia recreates such an earthlodge gathering.

Chapter 8: Ceremony in Life and Death

A.D. 900 to 1300

The Mississippian Era

The cryptic ritualism and earthworks of Woodland people likely influenced followers of the Mississippian tradition, which came next. Lasting from approximately A.D. 900 to 1650, this era marked the final stage in prehistoric, cultural development of Southeastern people.

Distinct social strata arose, dominated by chiefs with considerable power. Art continued to be important, and much of it survived intact to confirm that Mississippian people had notably refined their skills in carving and other art forms. The bench mark of Mississippian societies, however, was farming. The impermanent and seemingly erratic plant tending suggested in the Woodland years was replaced by long-term, organized agriculture. Cultivation of the rich bottomlands adjoining rivers helped to feed burgeoning populations grouped in permanent communities.

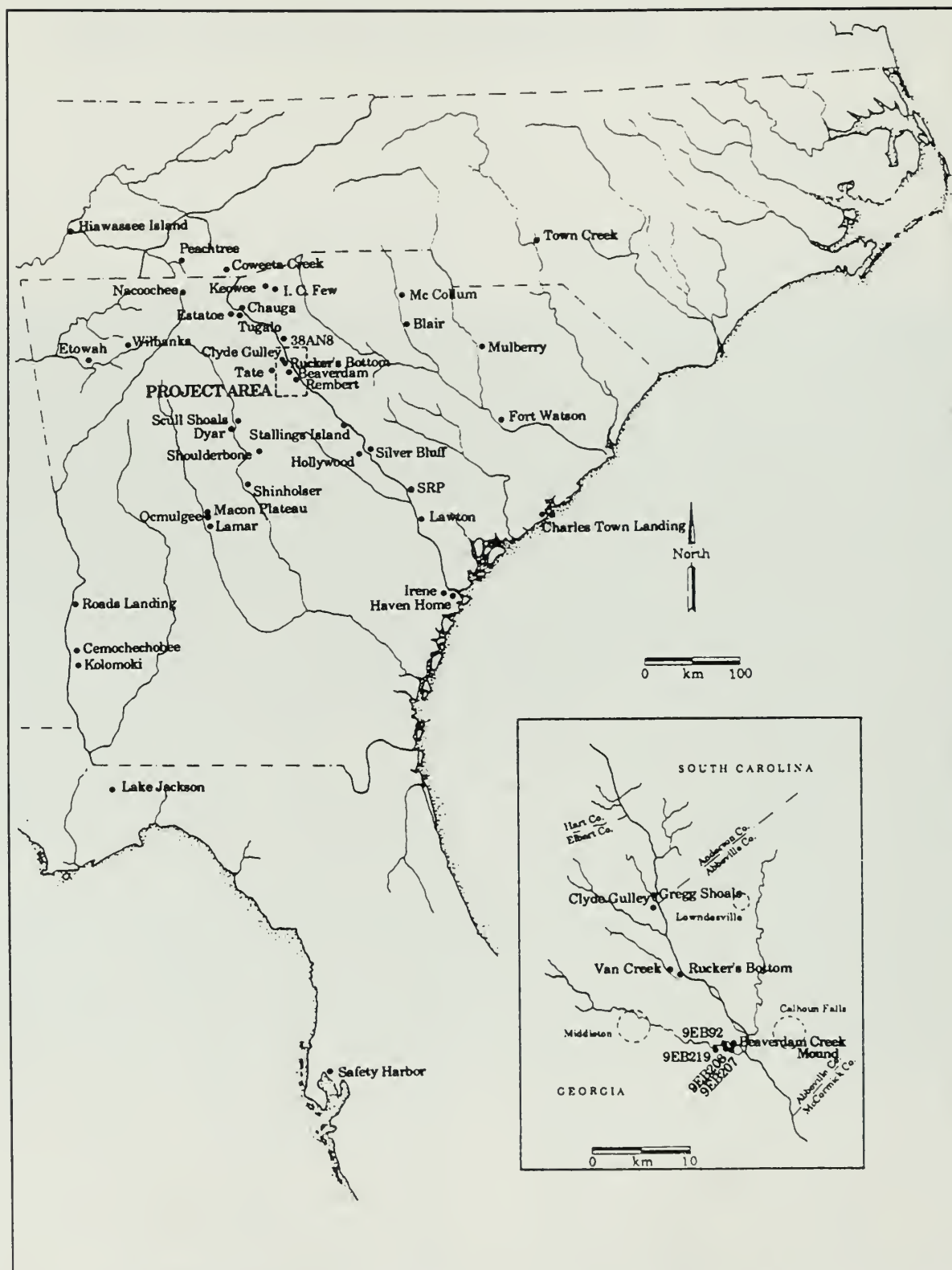
Mississippian societies emerged across wide areas of the Eastern Woodlands between about A.D. 700 and A.D. 1000, with some of the earliest occurring in the rich environment of the Mississippi River valley between present-day St. Louis, Missouri, and Memphis, Tennessee. Eventually, the culture reached as far north as Wisconsin, west into Oklahoma and Texas, and south into Florida.

Building dirt mounds, often of astonishing proportions, continued and greatly intensified. At Cahokia, in southern Illinois at the intersection of the Missouri and Mississippi Rivers, prehistoric people built more than 100 mounds, including one 100 feet high. Rising like pyramids, the mounds were flattened on top to accommodate buildings for residential and ceremonial uses. Cahokia, in its heyday, must have bustled like a small city, with 5,000

to 10,000 people living within its five-and-a-half square miles.

Such a dense population center was a radical change from the widely-dispersed, small settlements that existed before, and there are lingering signs that not everybody adapted easily to the transition taking place in the Mississippian era. Protective palisades around villages were common, doubtlessly to keep out enemies in the warfare that occurred. Sometimes followers of the new order may have forced their way into territories where people still practiced the Woodland customs dependent on hunting and gathering food. For those continuing to embrace Woodland practices, the concept of close quarters with so many others under the dominion of a Mississippian chief may have been hard to accept.

Warfare also increased because growing populations along key rivers led to more competition for limited resources, and because Mississippian political organization fostered competition and conflict. But coercion and conflict didn't always accompany the change to the Mississippian tradition. In the Russell area, at least in the beginning, the Mississippian tradition evolved peacefully from the vestiges of the old Woodland ways. Few Mississippian artifacts, only a handful of sherds, were found that preceded the ceramics dated to A.D. 1100 uncovered at a site called Clyde Gully. This Georgia excavation possibly represented a single Mississippian village or several smaller settlements occupied over the years. Ann Tippitt and William Marquardt found 8,300 pottery fragments at Clyde Gully, as well as the outline of a structure. The Mississippian potters who once lived there stamped some of the wares with nested trian-



Map 10: Important Mississippian archeological sites in the Southeast are shown, including those excavated in the Russell Reservoir Project Area (insert).

gle designs, while other vessels were plain or highly polished. A clay duck head, once attached to the edge of a bowl, was emblematic of the sorts of animal effigies crafted by artists of the era. Researchers also uncovered smoking pipe fragments and triangular arrowheads characteristic of Mississippian hunters.

The villagers possibly engaged in skin scratching (also called scarification) with sharpened rocks. Archeologists found sharp blades resembling small pieces of glass that were probably once inserted into split-stick handles. The blades were made by smashing crystal quartz rocks on an anvil of stone in a process first used in the area during the Early Archaic period and then abandoned for several thousand years.

Early people sometimes scratched human skin for various reasons. Europeans noted when they arrived in the Southeast that Indian parents scratched their children to punish them and to alert others that the children had done wrong. Also, men about to engage in the "ball

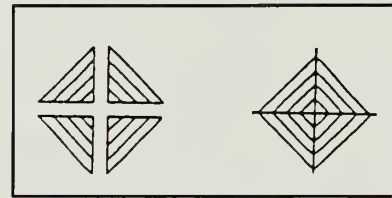


Figure 54: Nested triangle designs.

game", similar to lacrosse, were scratched on their arms and chests before the contest. Tattooing was also popular among the Indians, with designs etched in the skin and pigments inserted to color them. But the crystal blades dug up at Clyde Gully could have served other purposes instead of skin scratching. They might have been used to clean fish, for example, or to carve shell or bone.

Slow though it may have been to gain prominence along the upper Savannah River, the Mississippian culture took firm root between A.D. 1200 and 1300, with the establishment of an important ceremonial mound complete with burials according to status, intricate



Figure 55: A clay duck head once attached to a bowl was found in the Mississippian excavation at Clyde Gully. Period artists often crafted animal effigies in ceramics for decorations.

human adornments, and elaborate soil layering.

The ceremonial center, which relinquished numerous artifacts and scientific data, existed beside Beaverdam Creek in Elbert County, about a half-mile from where the creek flowed into the Savannah River. Built on ground slightly higher than the surrounding floodplain, the mound was near a large, U-shaped bend in Beaverdam Creek, and on three sides faced the water. At the bottom of the bend, the creek was only about 100 yards south of the mound.

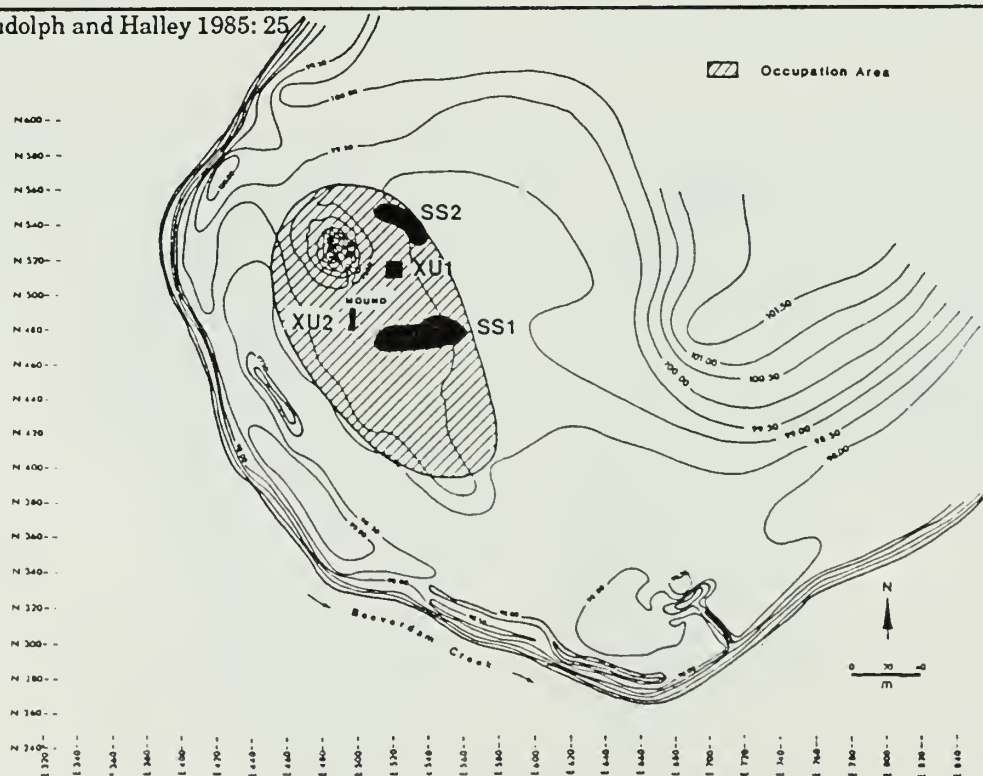
Between the creek and the mound there probably was once an open plaza where males played athletic games such as chunky before avid spectators. Chunky, widely popular, involved rolling a round disk or chunky stone on the ground. Contestants heaved long sticks or spears ahead of the moving stone, trying to anticipate where it would stop. The player

whose spear ended up resting closest to the chunky stone won. Several of the disks associated with the game were found at the creek site.

Beaverdam Creek in dry weather is deceptively shallow, only two feet deep and about 16 yards wide. But during heavy rains, the lazy flow can become a furious torrent. In 1908, for example, the creek swelled to 23 feet high, flooded, and destroyed much in its path. Prehistoric people witnessed similar metamorphoses, but perhaps they, like inhabitants after them, complacently accepted the creek's usual calm as a permanent condition.

Even before the mound builders began their work, the creek-side setting was occupied by Mississippian people who left artifacts, which archeologists later found buried in six to eight inches of dirt. These items were beneath remnants of the first ceremonial and political construction at the site, which was not a true

Source: Rudolph and Halley 1985: 25



Extent of Mississippian occupation debris around the Beaverdam Creek Mound. Most materials were found over an approximately 15,000 square meter area stretching to the southeast of the mound.

Figure 56: Beaverdam Creek Mound was built near a U-shaped bend in the creek, on ground slightly higher than the surrounding floodplain. Hatched lines in the site drawing denote the occupation area.

mound, but a small, square building with earth banked against the outside of its walls.

To make this first shelter, builders first dug holes, most about a foot apart. They then inserted posts, up to six inches in diameter, into the holes to form walls. They fitted stouter posts, one to two feet in diameter, in the corners to strengthen the building, then tamped in clay at the base of the posts to hold them in place.

The walls of this square building were about eight yards long. Dirt was piled up outside the building against all four walls, in some places at least two feet high. This embankment gradually sloped away from the walls, ending about six feet from the building at ground level.

David Hally and James Rudolph, University of Georgia archeologists who excavated the site, speculated that the structure was not entirely covered by dirt, although Mississippian people elsewhere did erect such shelters. Among the better known ones is the circular earthlodge at Ocmulgee National Monument near Macon in central Georgia. In that partially reconstructed earthlodge, which is about 40 feet in diameter, there are 50 seats along the walls. Three of the seats are on a raised platform shaped like a bird, where important personages presided.

The earthlodge at Beaverdam Creek was less ambitious in design, but was nonetheless a likely focal point for religious and political power for the people living nearby along the Savannah River. What were the rituals they enacted at this holy place? At least by the arrival of Europeans, Indians engaged in many festivals, often highlighted by dancing and feasting. Among the most important events for Southeastern Indians was the Green Corn Ceremony or Busk, a celebration of bountiful harvests. As farmers, Mississippian people

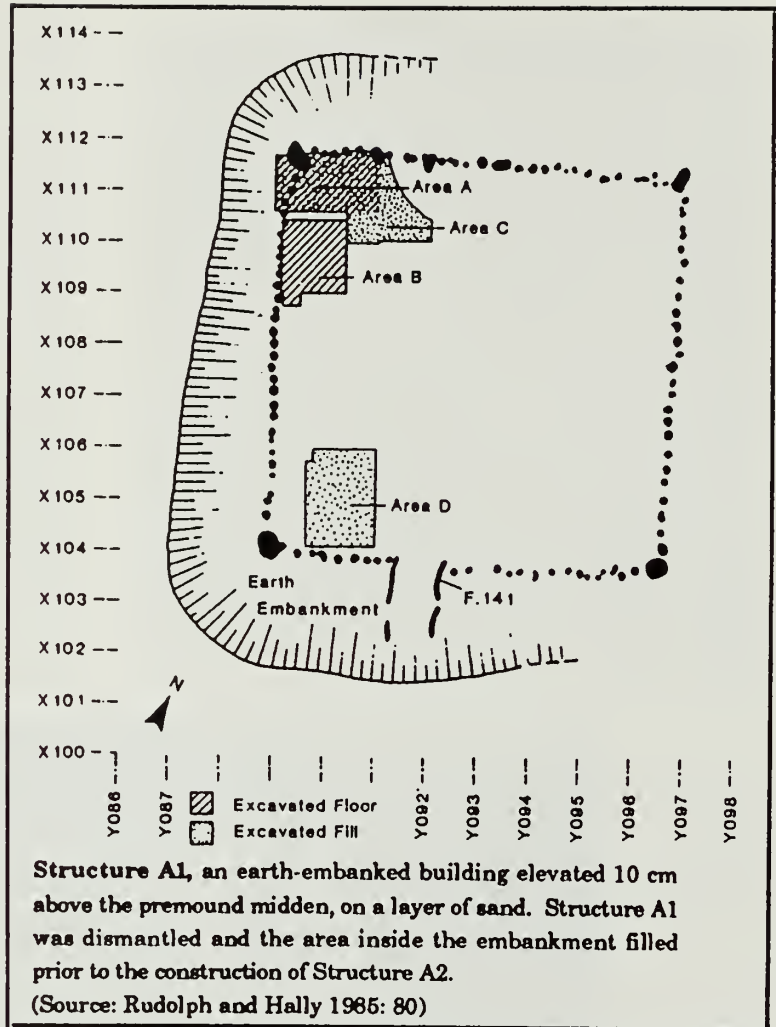


Figure 57: The first structure built at the Beaverdam Creek site was square shaped with dirt banked against the walls.

were heavily dependent upon successful crops to survive the winters.

Anthropologist Charles Hudson of the University of Georgia describes the Green Corn Ceremony as a celebration of great importance, with the comparative significance of New Year's Day, Thanksgiving, Yom Kippur, Lent, and Mardi Gras combined.

Observed near corn harvesting time, the event meant first fasting, then feasting, dancing, cleaning houses and public buildings, forgiving past injuries by others, and reigniting the sacred fire. The Green Corn Ceremony was also the occasion when leaders brought out cherished, ritualistic objects that remained hidden most of the year.

To enter the first ceremonial shelter at Beaverdam Creek required walking through a passageway about four feet long cut through the dirt banks on the outside of the building. The opening faced southeast towards the creek. Because the ground naturally sloped, the floor inside the earthlodge had to be evened. To do this, the builders spread a layer of orange sand, in some places four inches thick, inside the lodge. Grayish-brown, sandy clay went on top of the orange sand to create the final floor.

Because of destruction by looters, only a little of this original flooring remained by the time archeologists worked their way into remnants of the building. With care, they were able to uncover a few artifacts, including pot fragments, a concentration of fish scales and bones, and other food remains. These suggest-

ed that someone, perhaps a religious leader or chief, lived there, in addition to the structure's use as the seat of authority.

Archeologists were able to determine that the earthlodge functioned as a governmental and religious center because of its distinctive construction, so different from other nearby shelters. How much control the leader of this center exerted, cannot be precisely determined, but it was probably substantial. Mississippian chiefs throughout the Southeast exacted tribute in food and labor from surrounding populations. Europeans, several centuries after the Beaverdam Creek site was occupied, wrote that the chiefs they encountered not only held political power, but were also credited with the ability to communicate with spirits.

Anthropologist Charles Hudson thinks the role of Mississippian chief was probably often



Figure 58: The Ocmulgee earthlodge was reconstructed near Macon, Georgia, to show how Mississippian people built a ceremonial center on the site.

inherited, much like the thrones of European kings and queens and other dynasties worldwide. Among the Mississippians, lineage was traced through women, so that when a chief died, his position, in most cases, went to his sister's son, although elite status probably was enjoyed by all of the chief's relations. While most of the rulers were men, a few Mississippian societies were governed by women. Whatever the reach of their authority, leaders did not rule alone, but were likely assisted by a council of advisors, such as those who sat in the wall seats in the Ocmulgee earthlodge.

Following customs duplicated in other locations during the Mississippian period, Beaverdam Creek people eventually dismantled their carefully-built earthlodge and buried a highly-esteemed man where the building once stood. They may well have destroyed the building because of the death of this important man, possibly their chief.

When they removed the walls, they buried the floor of the structure under a pile of brown sand. They probably carried the sand in many basket loads to fill the cavity left by the destroyed building, piling the sand so high that it sometimes reached several feet above the old floor. Atop this heavy concentration of fill, they added another layer of darker brown burial sand, which they molded into a mound about a foot high. They then scooped out a shallow, oval-shaped grave. There they placed the man's body in a tightly-flexed, fetal position.

Envisioning a solemn funeral for someone held in such regard is made easier by itemizing the many valued goods mourners sent with him to the afterlife. No other prehistoric burial uncovered in the Russell studies displayed such artifact complexity or variety. Among the objects, found fitted to the skull, was a crescent-shaped sheet of copper, embossed with a concentric, circular design. Almost eight inches long, the crescent was probably part of an elaborate headdress. Mississippian elites often dressed in exquisite costumes representing birds and other animals to perform cere-



Figure 59: Postmold alignments from the first earthlodge were found at the Beaverdam Creek mound site.

monies and dances. Plant fibers clinging to the copper crescent were possibly more remnants of such a ceremonial headdress. There were also signs that fabric was pressed against the copper at burial; possibly the entire body was wrapped in cloth.

The circular design on the headpiece reappeared on two ear ornaments found near the skull. The earrings, round copper disks, were about two inches in diameter. Pieces of wood ear plugs that once held them in place were nearby.

There were indications that he also wore at least two necklaces, including a shell gorget, a popular Mississippian adornment made from a whelk or conch shell. This round gorget was found at chest level. Unfortunately, the details of its cut-out design had deteriorated over time. A small, button-shaped shell with two holes lay on top of the pendant, and was perhaps a part of the motif.

To make such a necklace, the artist sought a large, spiral shell of the sort children hold to their ears to hear the ocean. These shells were popular trade goods for Mississippian people, and must have cost those farthest inland a good deal. The ideal shell was large and had

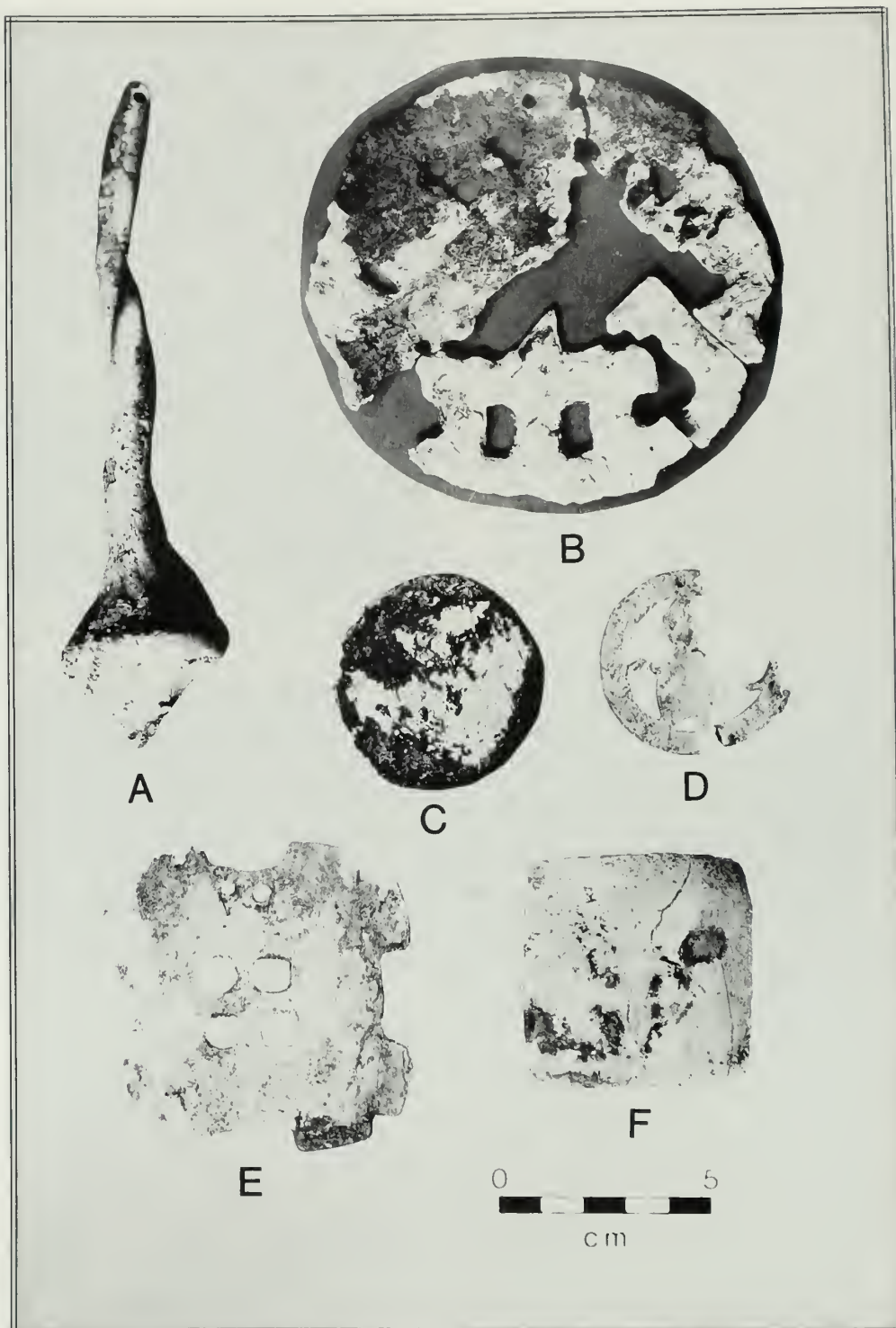


Figure 60: Shell artifacts from the burial mound included A, the columella pendant, C, an ear ornament, and B, D, E & F, gorgets. D has a carving of a bird, possibly a woodpecker.

great luster, with a long shaft inside called the columella that could be cut into many small, decorative beads. The whorl, the part of the shell that fans out from the center column, was removed, then cut into shape to form the

gorget. Any rough edges were then smoothed.

Ovals and circles were popular gorget shapes, as well as squares. Small holes were drilled into the gorget tops for suspending them from cord or some other material. The

artist's virtuosity in design and technique manifested itself with the delicate etchings and cut-outs made next in the surface of the sea-shell.

Gorget decorations are often detailed depictions of mythical and real animals, so fluid in their execution that they seem to move. Some designs portray ominous-looking visages that may or may not represent humans. These images are thought possibly to reflect the beliefs and group affiliations of their former owners, as well as their status as leaders.

Occasionally, the columella was not cut into beads, but left intact and used as an ornament, which was the case with the second necklace found with the important man's burial at Beaverdam Creek. This columella had a hole drilled at one end and was worn like an upside-down tornado, with the biggest part of the shell at the bottom. The necklace supporting the columella was strung with many small shells, each about one-and-a-half inches long.

Altogether, archeologists counted 7,043 shell beads in this single burial, mostly near the thighs, right knee, and chest. Experts think the shell beads—formed into tiny barrels and flat disks—were worn as strands in bracelets, sewn into garments, or both.

Finally, a thin, highly-polished mammal bone found near the head apparently was a hairpiece. Men sometimes wore their long hair wrapped into buns secured by such pins. This pin was about two inches long, flat on one end, with a blunted point on the other.

While exactly what the peoples' beliefs were and how they observed them are not known in detail, the copper ornaments, shell gorget, and columella pendant were characteristic of ritualistic symbolism identified with the Southeastern Ceremonial Complex, also called the Southern Cult, which existed broadly in the Southeast.

As for the man who was buried above the first earthlodge and was accorded such deference in death, scientists learned that he had probably also required extensive care during his lifetime. His skeleton revealed that he was

between 30 and 35 years old, and had suffered from osteomyelitis, an infection of the inner bone which causes inflammation of the marrow. Robert Tyzzer, a physical anthropologist, determined that both of the man's legs and one arm were affected. Crippled and in great pain, he possibly died from the disease.

His grave, covered with a yellowish, gray clay almost a foot thick, likely sanctified the place where the people built their next ceremonial structure, another earthlodge. The grave was underneath the new building's earth embankment.

Construction methods for this ceremonial structure were similar to those used on the first earthlodge. Builders again formed walls from posts stuck in the ground, and placed bigger posts in the corners as braces. Smaller than its forerunner, with each side of the building only seven yards long, this second structure conversely had more dirt piled up

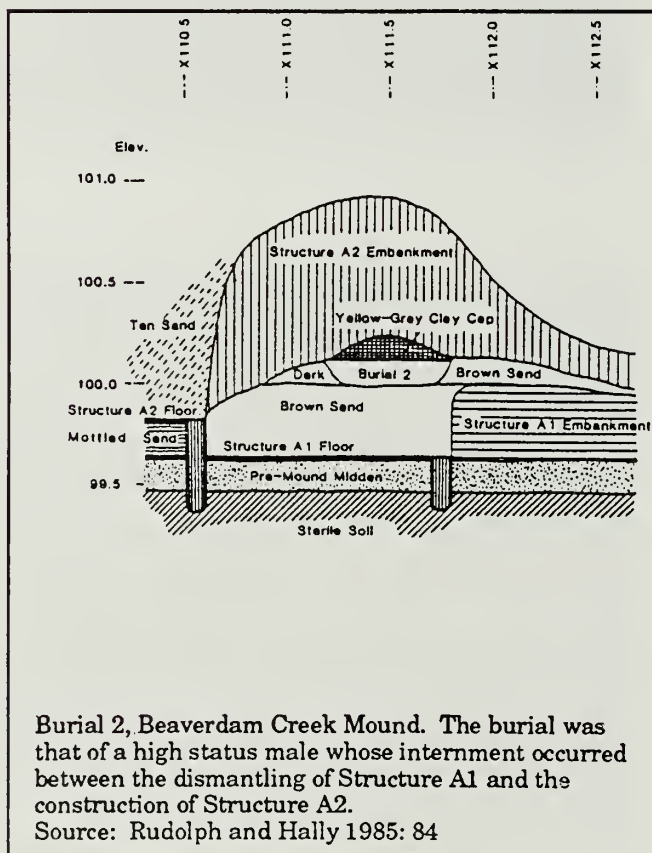


Figure 61: The man's skeleton found with many objects (Burial 2) was placed atop where the first earthlodge once was.

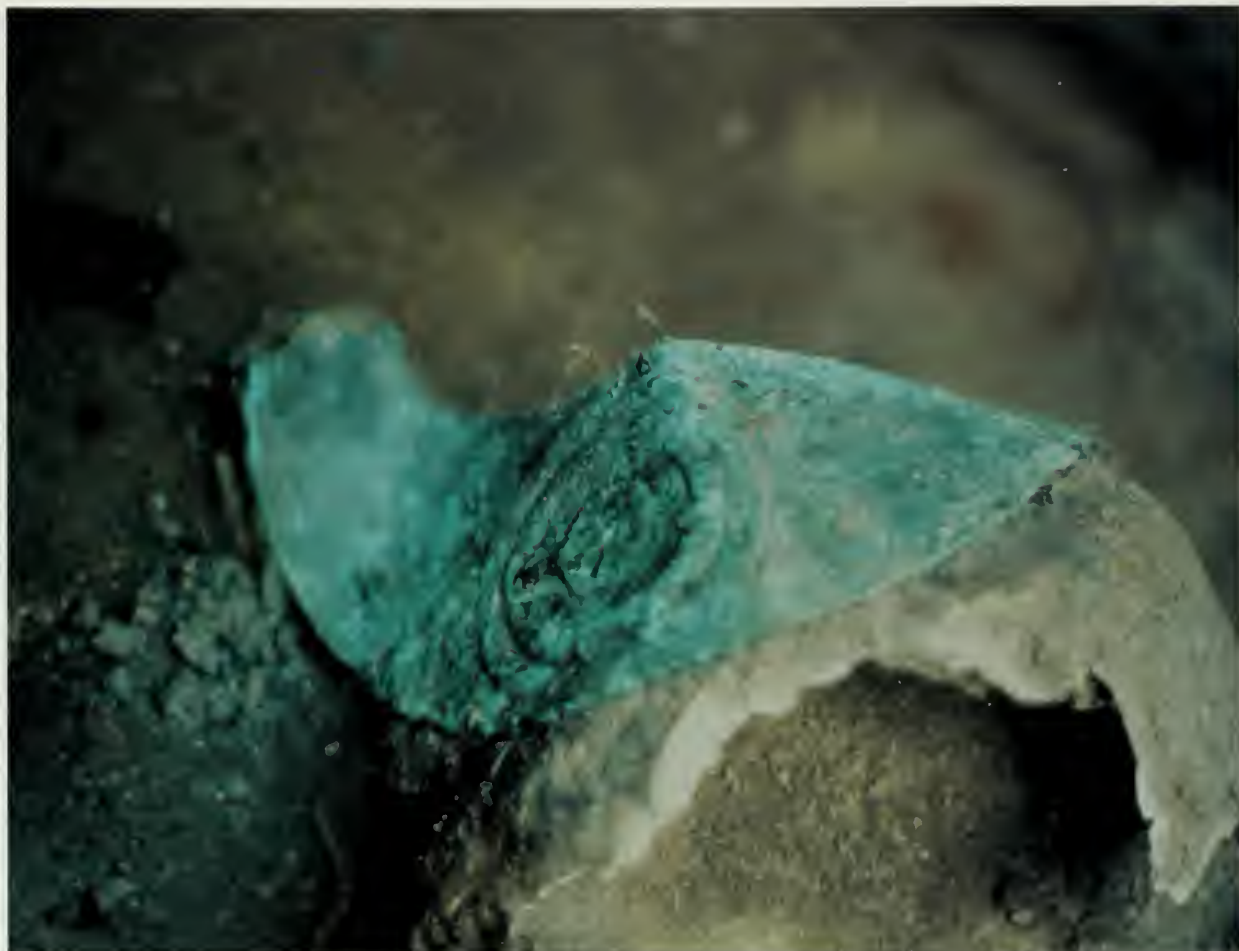


Figure 62: A copper ceremonial headdress, turned green with age, was fitted to the skull of a skeleton uncovered in the earthlodge. Mississippian leaders often wore elaborate costumes for rituals.

against its walls. Archeologists estimated that in some places the embankments were nearly four feet high.

The dirt supports stretched nearly nine feet away from the walls, and once again sloped gradually downward until they reached ground level. Creating this soil embankment was not a haphazard dumping of whatever dirt was handy, but a deliberate layering of different-colored sediments. Some of these sediment layers were six inches thick.

The entrance was again cut through the dirt embankment, but was much longer, nearly eight feet, and three feet wide. The new floor inside the building was apparently basin shaped, with an outer rim near the walls about six inches higher than the center. Later, apparently during cleaning or remodeling, this floor

was replaced by two layers of sand, raising the level.

Ultimately, this building suffered the same fate as the first: It was dismantled and filled with dirt. But the cause of the destruction this time was perhaps not death, but something different. Soil examination showed that silt and sand were deposited along at least one side of the earthlodge during one of Beaverdam Creek's furious rampages. Maybe the shelter flooded, became useless, and therefore was abandoned, leading to the building of the first true mound at the site.

Why these followers of the Mississippian culture changed from building earthlodges to mounds is unknown. Perhaps the transition reflected a change from a more egalitarian leadership with decision making by councils to

a more rigidly hierarchical society more dominated by chiefs; fewer people may have had access to ceremonial buildings.

Or, possibly the people at Beaverdam Creek underwent some type of upheaval in their relationship to neighboring ceremonial centers. Another mound, called Tate, about 15 feet high, existed only four miles away and was possibly contemporaneous with the Beaverdam Creek center. Perhaps the two places participated in some kind of power sharing, but the Tate mound, outside the reservoir area, has not been extensively excavated, so knowledge about it is limited.

The Russell studies, however, did reveal significant information about how society was organized. There were three distinct types of settlements: homesteads, where small groups lived and farmed, villages, and the ceremonial centers, like the one at Beaverdam Creek. Residents of villages and homesteads probably visited the Beaverdam Creek mound for festivals and ceremonies, and may have also volunteered or been obligated to pay tribute to the leaders at the mound with the best parts of slain deer. Excavations at a village about seven-and-a-half miles from the mound revealed that the prized deer hindquarters had been removed, an indication the villagers were paying tribute.

Farm plowing had damaged the Beaverdam Creek site, interfering with archeological investigations, but even more destructive were deep gouges left by vandals hunting for artifacts. Besides pilfering important objects, the intruders also irreparably harmed the soil layering and stains crucial to understanding ancient human activity. Many details of the mound center, and of other vandalized sites, will never be understood because these "thieves of

time" destroyed part of the human record in their search for personal gain or mantlepiece curiosities.

Despite the damage done, Hally and Rudolph were able to determine that the mound first built over the remains of the two earthlodges was small, probably only eight inches higher than the almost four-foot high embankments of the second earthlodge. Shaped like a rectangular pyramid, the mound was about 56 feet long on one side, and 46 feet long on the other. There was probably a building on the flat surface atop the mound.

Near the mound's summit, investigators discovered an area of packed dirt. In this packed surface, they located a narrow pit filled with animal bone, antler, and burned plants. Both the pit and packed surface were topped by a layer of fired clay, and were possibly once part of the floor of the suspected building. The burned remains, however, could have also resulted from ceremonies used to consecrate the mound.

A decade before Hally and Rudolph's excavations, other archeologists found signs of another possible building on the first mound. They discovered two lines of postmolds above



Figure 63: More than 7,000 shell beads were found with the poorly preserved remains of the man who may have been chief.

another burial. Only a few bones remained of the skeleton, and no artifacts were found in the grave. But traces of burned wood near the grave and charcoal fragments appearing inside the postmolds indicated that at least part of the structure was burned, perhaps after the burial.

A layer of sand mixed with clay and ash had washed down the mound's side, but there was not enough data to prove that an entire building on top was once burned to the ground. There was much debris in this soil eroded from the mound's summit—unburned wood from logs or planks, boulders, sherds, animal bone, plant remains, and soapstone. Archeologists also found small, triangular arrowheads and remains of various tools. All of these objects seemed to suggest that everyday household activities were practiced by someone atop the mound, perhaps a chief or members of his family who may have lived there.

The objects found on the side of the mound

were well preserved because soon after they washed into place or were purposely thrown there, the people covered them with dirt as they built a bigger mound. They added about five more inches this time, and shaped a square base about 20 yards long on all sides. And, because there was now a steep hill to climb on one corner, they formed seven clay steps there. Overall, however, the mound was still not especially tall compared to some Mississippian earth formations. Even after two more additions in later years, its total height was probably only about five feet. But these five feet represented six different construction efforts, including the two earthlodges and four mound stages. Experts think structures stood atop all four mound stages, even though they found no evidence of a building on the second expansion.

Unquestionably, the site was sacred for generations because this was where many chose to bury their loved ones. More than 30

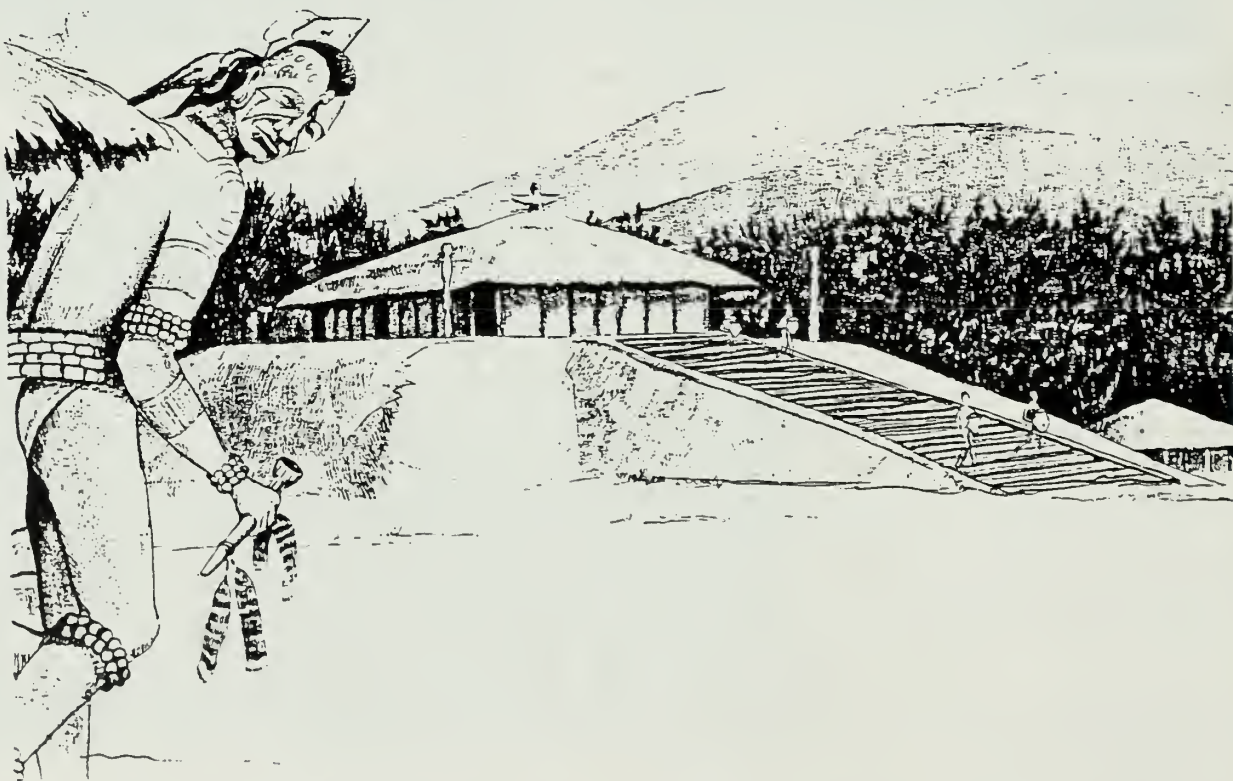


Figure 64: Ceremonial mounds sometimes had temples built on top and stairs leading up to them. An artist recreates how a mound might have looked. Beaverdam Creek mound was considerably smaller.

Fighting Back

Many forces threaten study of the past, some avoidable, some not. Fire, wind, waves, farm plowing, animals, construction, automobiles, and aircraft can all hasten destruction of archeological sites. Federal agencies, like the National Park Service and the U.S. Army Corps of Engineers, are fighting back, experimenting with preservation and stabilization methods.

Soil erosion can be particularly vexing. In response, scientists have categorized vegetation that can be planted in different parts of the country to help hold soil. Erosion on Indian mounds, for example, can be slowed by planting grasses with short roots which won't damage fragile remains underneath. Avoiding harsh fertilizers also helps protect mound contents. Many other anti-erosion methods are also being tried, including using wire or plastic mesh, and sometimes stacking logs to hold earth banks in place.

Damage caused by rivers or oceans is fought in some cases by simply piling up rocks or building barricades of cement, steel, or sturdy synthetics. Wave damage has also sometimes been reduced merely by encouraging boat drivers to go slower. Blocking whole river channels can also stop important archeological data from floating away. Some sites are purposely buried to keep them intact for future study, while erecting fences and closing trails protects other spots from damaging foot or vehicular traffic.

The most menacing threat of all, however, is vandalism. A 1989 report estimates that vandalism on archeological sites managed by the Southern Region of the U.S. Forest Service could cost four million dollars to repair. Sadly, however, much vandalism is irreparable. For those who value the past, few sights are more distressing than the ugly, bomb-crater landscapes caused by unauthorized digging. The battle against vandalism, however, isn't futile; there is some headway. Prosecution of thieves who steal artifacts from public lands does occur, aided by recent, stiff federal laws. Punishment for violation of these laws can include fines up to \$100,000 and imprisonment. Warning signs are now in place near some sites to discourage potential lawbreakers. In addition, a few state governments have also passed laws to curb vandalism on public land, and back up the legislation with tough enforcement. Such a commitment by states like North Carolina and Florida is, unfortunately, the exception.

The Tennessee Valley Authority (TVA) encourages amateur archeologists to join the fight in preserving the archeological record by allowing them to take part in authorized artifact hunting. The TVA offers training in field techniques, then allows participants access to TVA lands. Any artifacts they find belong to the government, but participants can borrow them for study or for display in presentations to schools and others. The amateurs further help by reporting any unauthorized digging they see, but they are cautioned against confronting looters themselves, because those who vandalize for profit are often armed.

Federal agencies are fighting theft in other ways as well. Currently, experiments are underway with electronic surveillance equipment, and while much of the technology is promising, costs are often high. Stepped-up enforcement and better training for those responsible for site protection are also underway. Most promising of all, however, are efforts to teach young and old that digging up artifacts without permission and without guidance from a professional archeologist is wrong and destructive because once an archeological site is damaged, information is lost forever.

graves were uncovered within the many layers of the mound, extending down to the first earthlodge and below.

Before the building of the first earthlodge, there was apparent equality concerning whether men or women were buried there, but males received more elaborate mortuary treatment. With the creation of the mound, male burials dominated. Placement in this cemetery apparently came to be a final mark of lofty social standing, with some of the burials

accompanied by prized goods. Such objects were absent in all but one of the burials found away from the mound in the adjoining village area. All of these unadorned village graves belonged to women and children.

About one third of the mound burials contained artifacts or exhibited some sort of distinctive care. While dominated by men, this more prestigious graveyard did include some adult female and child burials, apparently showered with the same degree of attention as



Figure 65: Looters searching for artifacts severely damaged Beaverdam Creek Mound. Their careless digging destroyed important information, and put archeologists on guard to protect the site.

the men's. Noteworthy was the grave of a woman, whose age at death was about 40. The remains were located beneath two charred logs, and accompanied by a bead and two square shell pieces. Directly over her burial and extending down into it were several hearth-like surfaces, with a wide range of charred plant and animal remains, possible residue from her funeral.

Another woman, about 21, was buried with many turtle shell pieces near her pelvis that apparently came from a crushed rattle or cup. Early people often expressed their grief by purposely breaking grave goods. Sometimes they also punched holes in ceramic vessels, but none of these were found at Beaverdam Creek.

Another grave that received unusual treatment belonged to a woman, about 45. She was buried beneath a possible screen or a small structure about two feet long. Although the wood had long decayed, a curved line of postmolds alerted archeologists to the special treatment.

A child about 18 months old of indeterminate sex was buried with seven bone beads and

two shell gorgets. One gorget, square-shaped and about three inches wide, found behind the head, was probably a hair decoration. The other gorget, circular and smaller, was apparently worn as a pendant. Parts of its center were cut away to create the image of a long-billed bird, a woodpecker possibly, with an arrow passing through the bird from left to right.

Many female skeletons, whether buried in the mound or apart from it, showed signs of deliberate cranial deformation or head shaping. This was achieved by tying an infant's head to a board so that both its front and rear

were altered as the skull seams joined with age. Considered a mark of beauty, the resulting sloping forehead and flattened back of the head took about a year to shape, with babies kept tied to the boards for decreasing lengths of time over the 12 months. The practice persisted when Europeans arrived. Indeed, Indians considered shaped skulls so superior that they derided the Europeans as ugly "long heads".

Indians commonly tied both boy and girl infants to shaping boards, but at the Beaverdam Creek site, only girls heads appeared to have been altered.

Among the men receiving distinctive burial treatment was a 60-year-old put in a special chamber dug toward the side of a pit in the mound. Near his wrist, 450 small, barrel-shaped beads were found. Bone analysis disclosed that this individual, who was quite elderly for his time, suffered from a chronic bone disease called blastomycosis caused by a yeast-like fungus. Apparent attempts to relieve his pain involved cutting through his skin to the shin bones. Partially healed scars in his lower leg bones alerted scientists to what must

have been a horribly painful surgery.

Age was a status factor for many buried in the mound with either grave goods or with unusual grave treatments. Women awarded these more prominent final resting places averaged about age 40, compared to women accorded no special treatment, who averaged about age 28. Surviving childbirth, a probable cause of death for many of the younger women, seemed to allow older ones to achieve elevated standing. In contrast, men accorded distinctive burials averaged about age 46, the same approximate age as males not given the extra care.

For all the adult burials, high and low status, the average male age was 46, while the average female age was only 32. Most of the burials of people between age 20 and 30 were women, an indication of the dangers associated with the peak reproductive years. Equally treacherous for everyone, however, were life's first ten years, when the most deaths occurred. Researchers did not find a single teenage burial, suggesting that the adolescent years were either virtually risk free or else had to be survived before a person could be buried in

the mound.

While the significance of various grave goods is debatable, four small triangular arrowheads found near the feet of the remains of a man in his early 30's suggest that he was an admired hunter. But the significance of how the bodies were placed in graves is less clear: 65 percent were found with the skull tops facing southeast.

Pollen samples from several graves showed they once held considerable amounts of a plant called spikemoss, which was perhaps used as a cushioning burial mat.

Bone analysis showed scientists other interesting facts, including a possible case of tuberculosis. The finding is controversial because some scientists think the disease didn't even exist in North America so long ago. Possible signs of the malady were detected in the remains of a woman about 21.

Experts are unsure exactly how many people lived at the ceremonial center, but think that at least some stayed there year round. A layer of artifact-rich soil up to eight inches thick stretched about 50 yards out from the mound into the village, indicating consid-

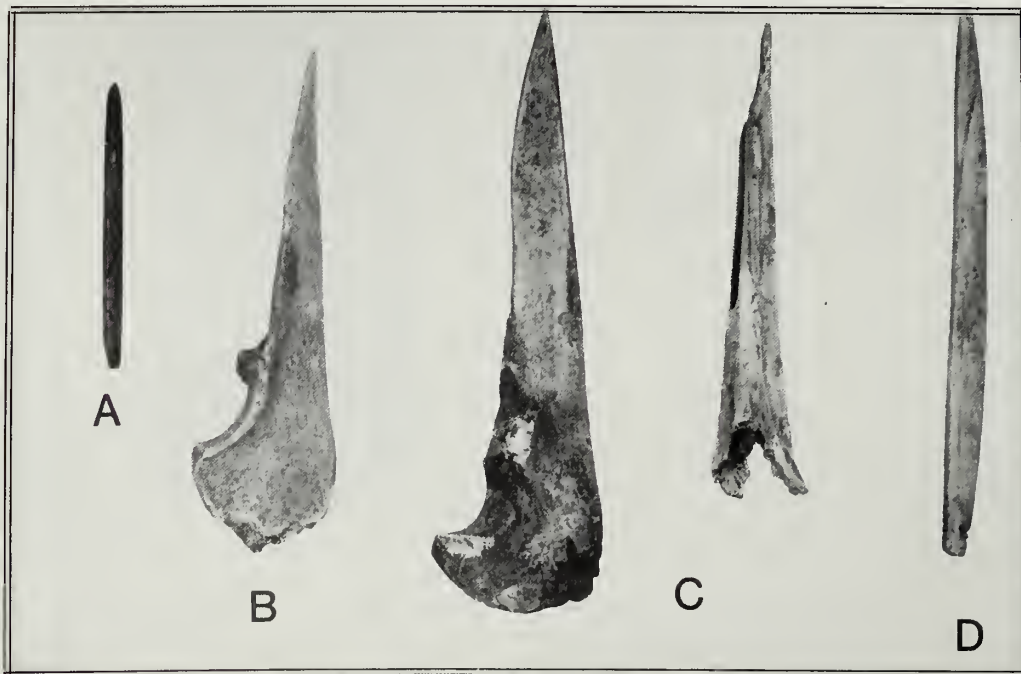


Figure 66: Deer bones (B) and bird bones (C & D) were used as awls for punching holes in wood and hides, and possibly for weaving baskets. A is a polished bone cylinder, perhaps a hair pin.

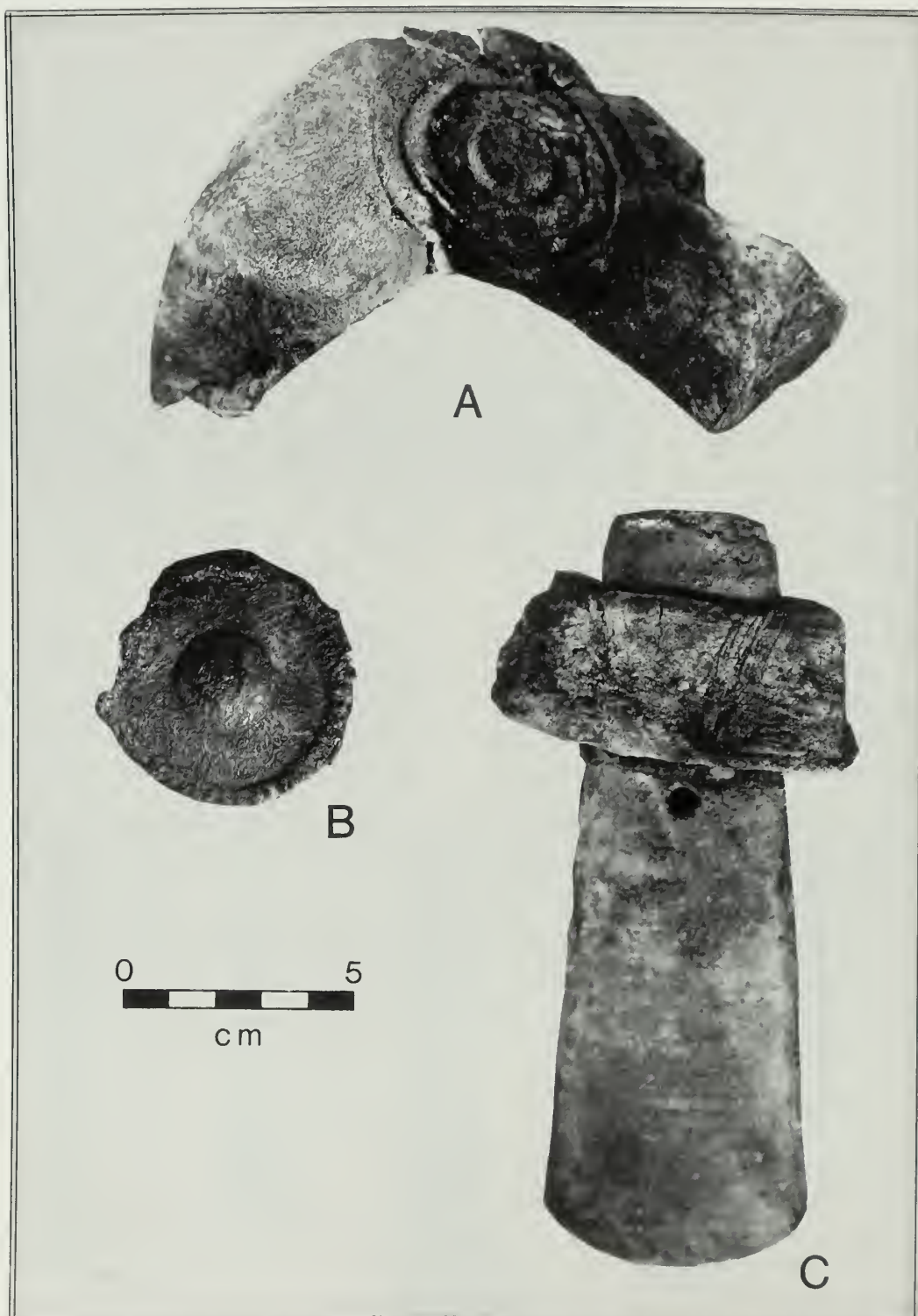


Figure 67: The copper headdress (A) and earpool (B) found with the burial in the first earthlodge share a concentric circular design. The ceremonial celt (C) was covered with a thin copper layer.

erable human presence. But in this area, researchers detected only one set of postmolds reflecting a former house. The postmolds formed a square about ten yards on all sides.

The farmer's plow that disturbed much of the site possibly destroyed signs of other dwellings. Perhaps once there were as many as ten houses in the village, but Hally and Rudolph surmised that there were probably less. They theorized that for most of the year the center was the residence of only a small group, and that this group was joined during special events and festivals by others who lived elsewhere. They attributed the many postmolds found within 50 yards of the mound to temporary platforms or arbors where the visitors slept, and to benches and screens erected for their use.

Even during the special occasions that brought them to the mound, these visitors likely continued many of their normal daily activities—preparing meals, manufacturing tools, making pottery, and sharpening their weapons—accounting for many of the artifacts found in the village area. Besides the stones for the chunky games already mentioned, there were hammerstones, anvils, and small, quartz pebbles for polishing pottery, as well as oblong, soapstone objects, possibly used as weights.

A few perforated slabs resembling the boiling stones of the Late Archaic period and many other soapstone pieces in various shapes surfaced. Bone tools also were found, including awls, which were used as sharp tools for punching holes.

Archeologists also uncovered many pieces from smoking pipes, most of which were made of ceramics, along with a few made of stone. The volume of pipe fragments indicated that smoking wasn't limited to ceremonies, but was a part of daily life. One especially interesting pipe fragment was made to look as if two, small human hands were holding the bowl.

A glimpse into the lost rites celebrated at the mound came with the discovery of an

indisputable ceremonial artifact—a celt. Somehow, the object was overlooked by the vandals who dug the hole where archeologists later found it.

Researchers concluded that the stone celt, an ax-like tool, was never intended for ordinary use because it was covered in a thin layer of copper, which showed no signs of wear.

Dating another structure found in the mound area was problematical. This round building, traces of which were buried beneath outer edges of the last two mound stages, may have stood when one of the earthlodges existed. But the building could have also existed during the time of the earliest mound stages. Its purpose was also puzzling.

The people built the round shelter with methods similar to those used in erecting structures atop the last two mound surfaces. They first dug a trench two feet deep in a circle, which was about five yards in diameter.

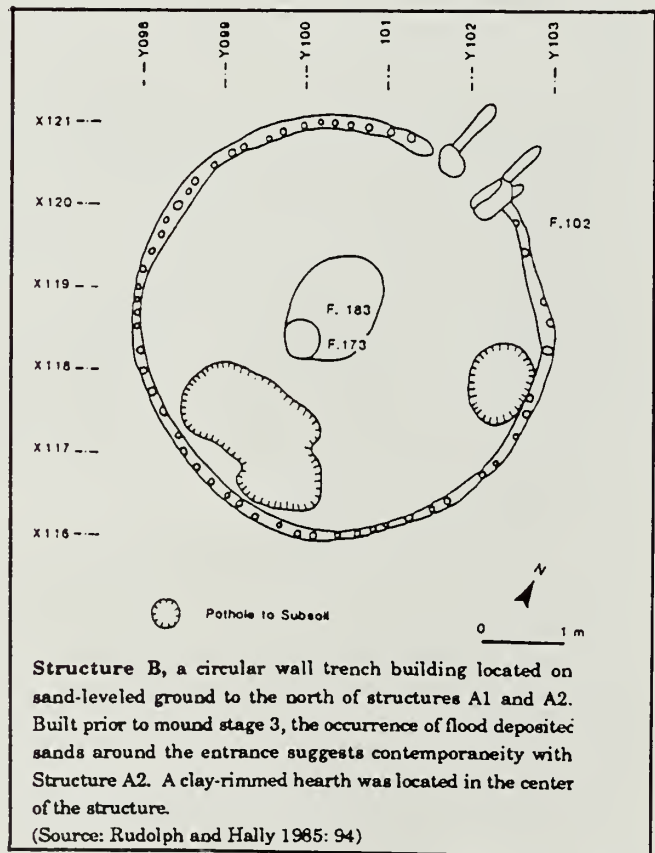


Figure 68: A circular building, outlined in a site drawing, possibly existed at the same time as the second earthlodge.

The trench was about a foot wide at the top, narrowing to only about four inches at the bottom, where the builders jammed in the wall posts. They pushed the posts as much as three inches past the soft trench bottom to anchor them. Then they packed in dirt to help hold them in place. Finally, they coated the walls with unfired clay.

Because few whole artifacts appeared within remains of the house, which showed no sign of being burned, archeologists theorized that the structure was cleaned before it was demolished. What researchers found were mostly examples of everyday refuse—arrowheads, stone flakes from toolmaking or resharpening, sherds, and animal and plant food remains.

Few potential ritual objects materialized, a baffling omission because the structure was within only feet of the spiritual and governmental focal point for an entire region. The

only artifacts with religious potential were a single bead, three battered crystal fragments that were perhaps used to start fires, and a small piece of mica. Nothing surfaced, either, to suggest that a member of the elite class occupied the building. There were none of the valuable shell gorgets or columella pendants that the higher caste favored. These shell ornaments and ceremonial articles, however, are exactly the sorts of items that would have been purposely removed before the building was abandoned, leading archeologists to think that someone of elevated stature may indeed have lived in the house.

One final discovery within this structure's borders, a two-inch piece of graphite, possibly was used to make black paint. Elsewhere at the site, pieces of graphite and other substances used for obtaining pigments were found, including ocher, which yields hues of yellow,

Cooking Customs and Containers

Research conducted by David Hally at Beaverdam Creek Mound demonstrated that participants in the Mississippian culture preferred to eat liquid-based foods with large spoons. They dipped the spoons into a particular sort of communal container, called a carinated bowl, which was circular with a flat bottom. Bowl sides slanted upward from the base at an approximate 45 degree angle, and the containers could be quite large. One found at the creek site had an opening at the top sixteen-and-a-half inches wide.

Carinated bowls were also used for heating precooked foods and for cooking foods briefly. Soot was found on many of the sherds as a result.

Broths for the liquid dishes served in the carinated bowls came largely from oily seeds, animal flesh, or nut oils. Liquids from the same sources were often poured over cooked and uncooked vegetables when served. Hominy, dried and hulled corn kernels prepared with wood ash lye, frequently found its way into the pot, and also into baked breads. To be palatable, hominy required hours of boiling, as did many of the more fluid meals. Cooks used especially deep jars to prepare these dishes. They also used the deep jars for storing soups, water, and oils.

With the increased complexities of their culture, Mississippian potters were motivated to make a greater variety of containers than their ancestors. Besides the carinated bowls and deep jars, they made vessels of many other sizes and shapes for different purposes—for pouring oils over food, for serving fruits and nut meal, for short-term storage, and for stirring and beating food. For potables, they fashioned clay bottles, with small openings at the top. These were rare, however, because the people at the mound probably preferred drinking water from gourds. Perhaps they drank sassafras tea, among other beverages, from the bottles.

The variety in size and type of pots found at Beaverdam Creek Mound perhaps indicates that at least some pots were used for serving individuals, and that others served entire households or even several households. The assortment could also reflect the potters' different tastes. One woman perhaps preferred making the bigger vessels, while another opted for the smaller styles.

brown, or red, and hematite, also a source for red. Mississippian people, apparently adept at color chemistry, mixed these pigments, and those found in plants, with spit, blood, urine, water, or bear grease to form paint. At other Southeastern sites, archeologists have found paint brushes made with feathers and animal hair. The brushes resemble those used today.

The Beaverdam Creek site residents enjoyed a varied diet, with corn, acorns, hickory nuts, and maypop fruit among the most important plant foods. Scientists from the University of North Carolina, who studied carbonized plant remains from the site, found corn especially prevalent, appearing in 93 percent of the samples. Most of the corn was an eight-rowed variety called *Maiz de Ocho*, Eastern Complex, or Northern Flint.

Residents also ate squash, and probably sunflower and sumpweed seeds, and fruit. Besides the maypop, they ate quantities of grapes. Persimmons, strawberries, plums, and

bramble berries (a category including blackberry, dewberry, and raspberry) were also consumed. To flavor their stews and soups, they used the potherbs carpetweed and purslane.

Their less familiar foods included maygrass seeds, which are produced in late spring and early summer when other food could be scarce. They also ate the greens and seeds from chenopodium and amaranth, which are today considered weeds. These plants cropped up quickly after fields were cleared.

The predominance of pine pollen found during the excavations suggested the residents did much deliberate land clearing. Prehistoric farmers, inclined to till the rich alluvial soils, did little to augment soil fertility; when fields were exhausted, they simply cleared more land and started over. The first tree in the Southeast to grow in an abandoned field is pine.

Fish, abundantly available nearby, were well represented among the refuse. The re-

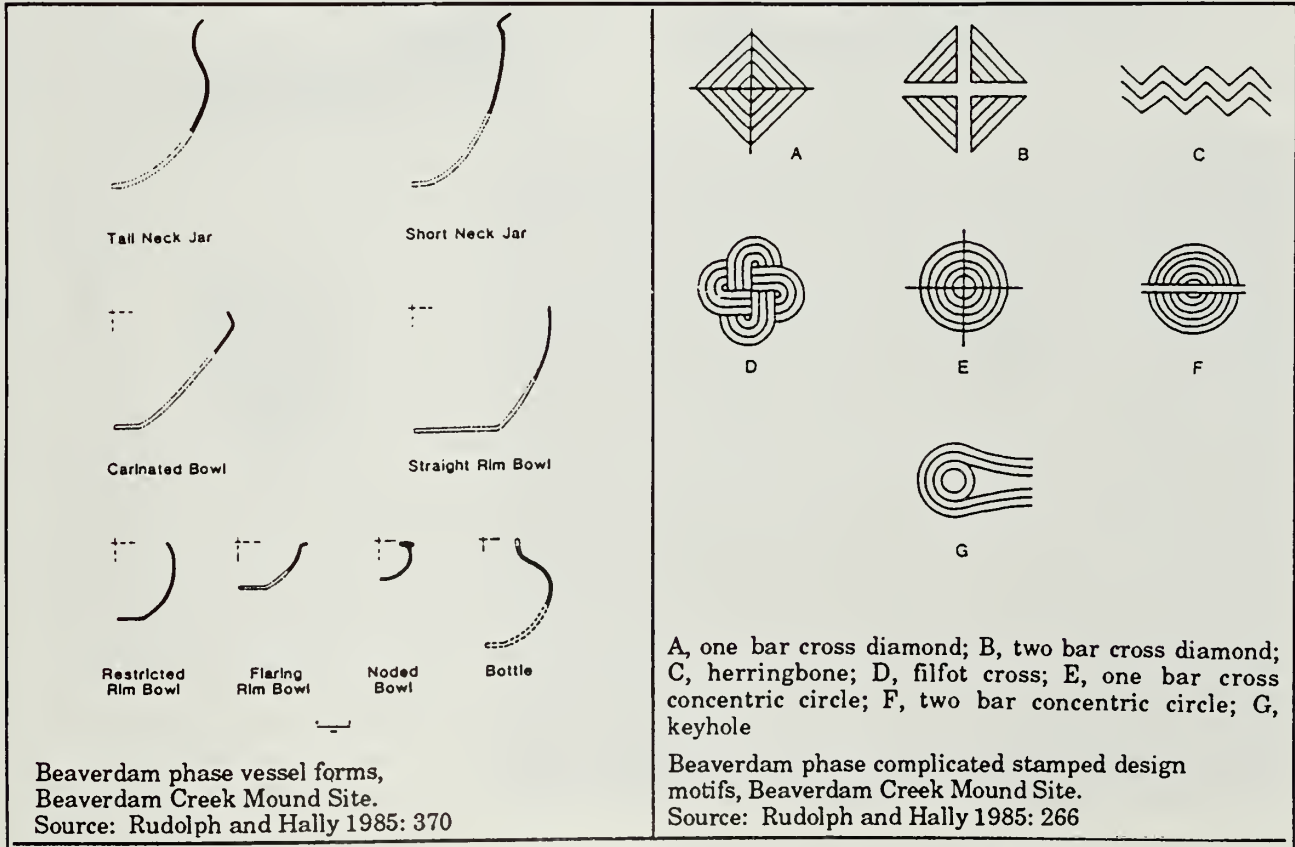


Figure 69: Many different ceramic vessel shapes and designs were found at the Beaverdam Creek Mound site.

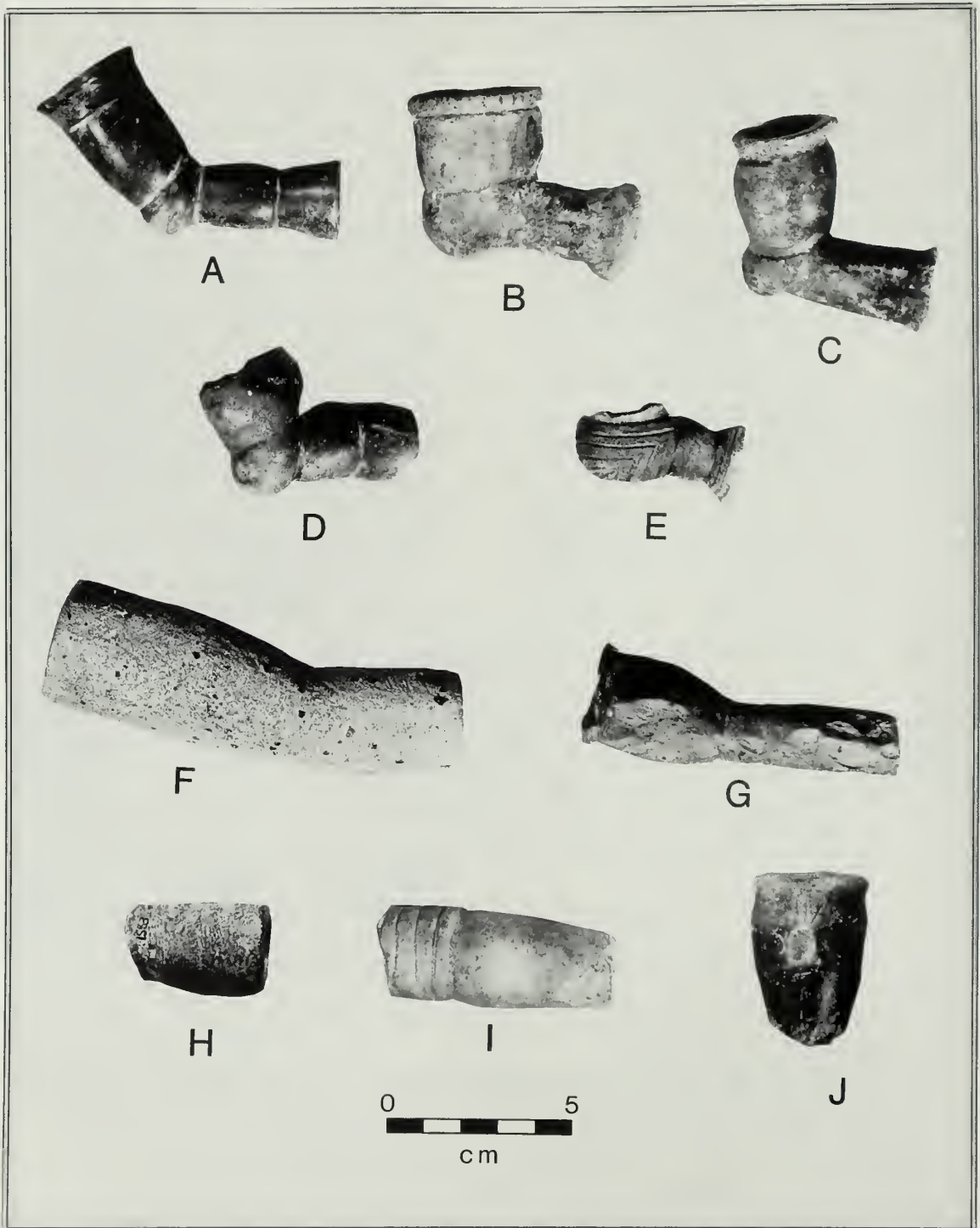


Figure 70: Many pipes were found in the mound site excavations. F & H are made of stone, while all the others are ceramic. Mississippian people smoked different blends of plant leaves.

mains of gar, sucker, white catfish, channel catfish, sunfish, large-mouth bass, black crappies, and freshwater drum all appeared in the soils.

Some of these fish swam near shoals in fast-moving shallows, while others preferred the deeper river water. They were caught in many ways—with hooks, nets, weirs, traps, or even with poison. Europeans noted that South-eastern Indians sometimes built an enclosure in a creek or stream when water levels were low, then put poison made from walnut tree bark and other substances into the water. The Indians then drove the fish into the lethal trap where they died.

Wild turkey was another favored dish at Beaverdam Creek Mound. There were also remains left from a passenger pigeon. These migratory birds, which became extinct in the late 19th century, used to blacken the skies of North America, so plentiful were their numbers.

As expected, there were signs of deer consumption, but also evidence that turtles, rabbit, squirrel, fox, and other small animals were hunted as well.

Charred bone remains showed that cooks sometimes roasted meat, but the presence of ceramics substantiated their taste for stews and soups, too. Prehistoric people did not customarily dine together at set meal times, but ate when they were hungry, which may or may not have coincided with when someone else was hungry.

In preparing dishes, cooks often used bear oil, which was also popular for other reasons. Mixed with red pigment and a sweet scent derived from sassafras tree bark and wild cinnamon, the oil was rubbed into the hair and all over the body, especially for festivals and ceremonies, according to early European observers. Babies, too, were slathered with bear oil, per-

haps to protect their tender skin from insect bites.

Further preventive health measures, as well as many treatments, came from other organic sources. Eyebane, for example, was used to treat skin injuries, infections, and as a laxative. Evidence of the plant was found at the creek site.

By the arrival of Europeans, some South-eastern residents were also using an extraction from willow bark prepared in a drink to treat aching muscles and fevers. The liquid they extracted, salicin, is now synthetically produced as aspirin. Indians also chewed twigs from sweetgum trees to clean their teeth.

Most of the pottery found at Beaverdam Creek Mound was undecorated, but some exhibited complicated stamping that required considerable effort to create. The triangular motifs popular on the stamped ceramics at the earlier Clyde Gully Mississippian site reappeared at the mound excavation. These triangular decorations included intersecting straight lines in cross shapes.

Similar cross and bar patterns also appeared in conjunction with concentric circles. Other



Figure 71: An example of a shell gorget displays the delicate carving skills of a Mississippian artist. The artifact was found at Etowah Mounds in Georgia.

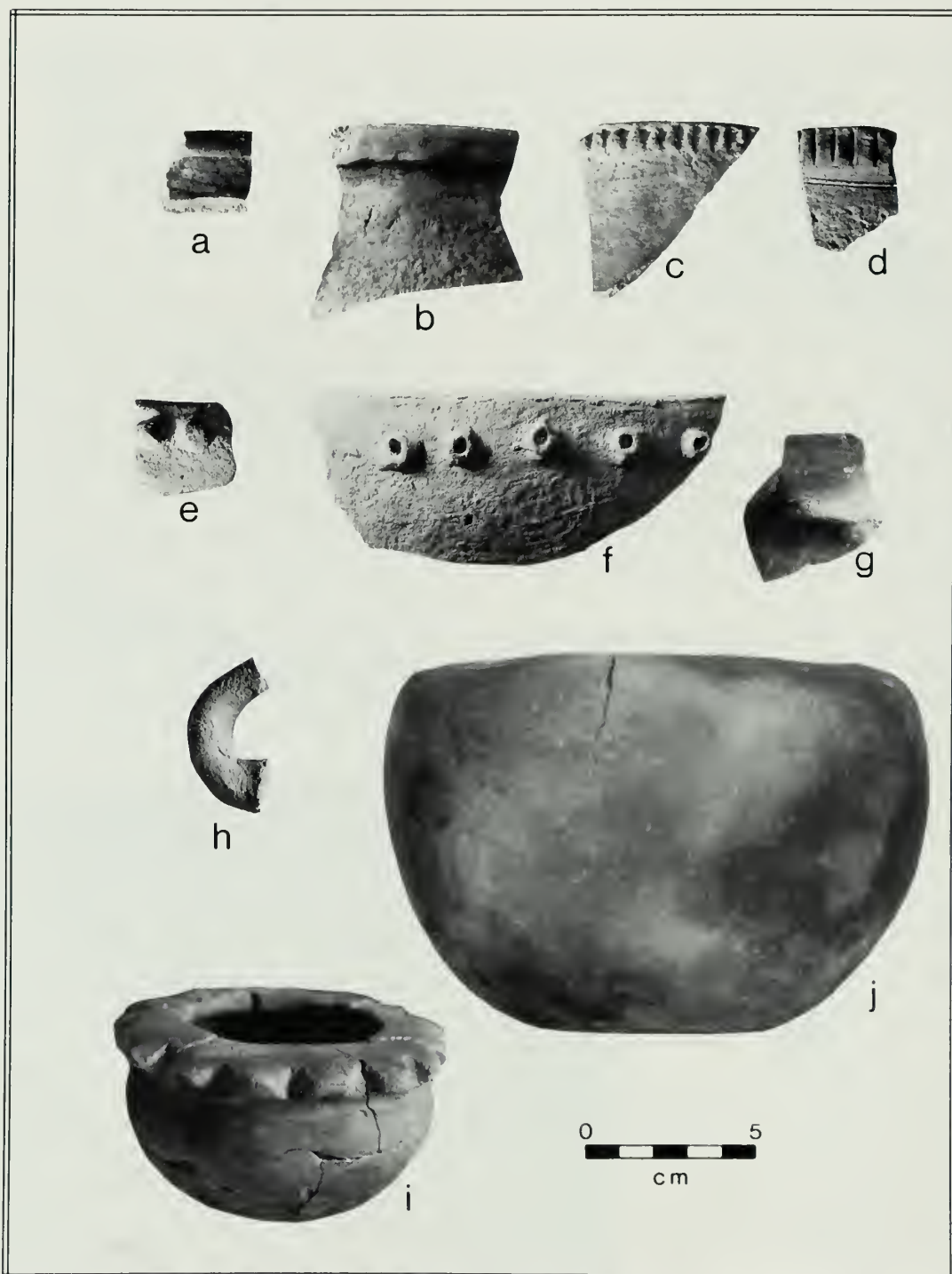


Figure 72: Pots and sherds found at the creek site included A-D, jar rims; E-G, bowl pieces; H, a jar handle; and I & J, polished bowls, which perhaps belonged to someone of high status.



Figure 73: Soils of different colors and textures provided a guide to the past at the Beaverdam Creek Mound site.

styles included the keyhole, which resembles a circle wrapped in flying streamers; the filfot cross, which looks woven; and a herringbone of many connected V and W shapes. Check stamping, which calls to mind tiny waffles, and was first seen in the Woodland period, reappeared.

Another decorative technique, burnishing vessels to a high gloss, provided a possible clue about the relative importance of the ceremonial center over time. Use of the technique at the mound gradually declined. If these polished ceramics were reserved for the elite, as some suspect, then the dwindling incidence of them could indicate a gradual downturn in the fortunes of the residents. Fueling this hypothesis was a parallel drop in the number of elaborate grave goods made of shell and

copper in the final mound burials compared to earlier ones, although this drop could be a result of modern-day looting.

Whether the end came gradually or all at once, the authority emanating from Beaverdam Creek Mound for some 100 years eventually stopped altogether, and a new ceremonial center arose.

The new seat of power appeared at a site called Rembert, which was only a few miles downstream from the Beaverdam Creek Mound. The rise of the Rembert center is associated with change in the Russell study area among Mississippian people. About this time, they markedly increased their vigilance, perhaps in response to spreading warfare. Amid the tension, the stage was set for a mysterious disappearance.



Figure 74: A replica of a Mississippian house shows how benches were built on wood stilts for sleeping and sitting. A hearth dug in the floor is partly visible on the right.

Chapter 9: Villages Found and Lost

A.D. 1300 to 1450

The Mississippian Era

The river had served the people well when its waters wore away a natural harbor at the base of a bluff near their village. Within the 20 protected yards of this semicircle, they could collect water in gourds and pots without venturing into the swiftest currents flowing about ten yards farther out. The harbor also provided them with a safe haven for bathing and swimming, and an ideal dock for their canoes, which they prized because making them took much time and effort.

To form one of the dugout boats, they sought a stout tree, which they chopped down, then hollowed by hand with stone tools. Any of the tree core that couldn't be removed by hand was set afire until only a shallow cavity was left. Finally, they shaped the canoe's two ends into points to make it swifter, and carved wood paddles to help them guide it through the river and creeks.

The bluff, about 13 feet tall, and the river below it provided some protection from attack for the villagers whose houses were built around an open plaza about 40 yards away. But they also needed other defenses, which they strengthened over time.

They began by digging a semi-circular ditch. Then several yards behind the ditch and parallel to it, they built a stockade fence. The ditch and fence looped around the community, which was spread out over about 6,000 square yards. As the population expanded and the fence began to deteriorate, they built another fence with bigger posts, this time up to a foot in diameter, compared to the six-inch wide posts of the earlier one. This second fence stood behind a rectangular ditch that enclosed 2,000 more square yards than the first ditch.

Preparing the second set of fortifications

began with digging the long rectangular ditch. Workers loaded the dirt they removed from the ditch into baskets, then carried it about six-and-a-half yards towards the village where they dumped it. They packed this dirt into a long, low embankment where the fence would stand, then dug another trench, about eight inches deep, in this embankment. Next they placed the fence posts in the trench, carefully packing clay around the post bases to hold them in place. They left several openings in the fortifications where residents could come and go to hunt, tend their fields, or dump garbage.

The village sat on a terrace near where the Savannah River joined a small tributary called Van Creek, which occasionally overflowed into a swampy marsh. The people occasionally dumped their trash in this wet area behind the village. About 400 yards on the other side of the marsh, there was a small rise where hunters prepared game before taking it into the village.

While earlier dwellers on the same terrace had pledged their loyalty to the elite living at the ceremonial mound center near Beaverdam Creek, these new inhabitants were aligned with a different religious and political authority twice as far away. Nearly 15 miles separated them from the newer center at Rembert where there were several mounds, one 32 feet tall.

The distance between the Rembert mound center and their community, considerable in prehistoric times, possibly allowed the villagers more autonomy than those who had lived on the terrace before. But the distance could have also meant more isolation, necessitating more vigilance. Perhaps, with the rise of the

new mound center farther away, the village near the bluff became more important to neighboring people living along the Savannah River in small, unprotected homesteads. Maybe they considered the village a haven in times of war, and an alternative place to the mound center for festivals and ceremonies.

Yet, no matter how vital this village once was and how hard people worked to protect it, this settlement was eventually abandoned. After about 250 years of human occupation, suddenly, inexplicably, no one claimed the land overlooking the river anymore. And not only did people desert this village, but others who occupied land for more than 200 miles along the river, all the way to the Atlantic Ocean, abruptly disappeared. By about A.D. 1450, nearly everyone was gone in a perplexing departure that scientists have yet to understand fully.

But excavations at the site of the former village, called Rucker's Bottom, in Elbert County, Georgia, did reveal other significant information about the last prehistoric years in the Russell area. Before that information could come to light, however, archeologists had to organize an immense research operation encompassing three seasons of digs in 1980, 1981, and 1982.

Coordination of the undertaking was almost as massive as the piles of dirt eventually removed from the site, which stretched a half mile long and revealed artifacts from many prehistoric epochs. A small army of workers, professionals and volunteers, were involved, and an array of heavy equipment was marshalled into place. The heavy equipment often operated simultaneously and included a bulldozer, motor grader, front-end loader, and a tractor-pulled scraping blade. The machines cleared away top soil, dug trenches, and moved tons of earth while a relentless summer sun baked the soil and the workers.

To ensure that the field work was carefully done, archeologists themselves drove and operated the big machines, taking turns at the controls every few hours in a battle against

fatigue exacerbated by the intense heat.

The site soon took on the look of a small village once again, teeming with workers and interested bystanders who lived nearby. Those actually doing the research included independent archeologists, as well as archeologists employed full-time by the National Park Service and the U.S. Army Corps of Engineers. Many universities, including Wake Forest, Georgia State, South Carolina, Georgia, Wisconsin, and Michigan, were represented, either by offering field classes at the site or by conducting related research. The hundreds of volunteers nearly doubled the amount of work that could be accomplished. Among the helping hands was an entire high school class that traveled all the way from Jackson, Michigan to spend spring vacation. Weekend barbecues became a favorite occasion to honor everyone involved.

All these individual contributions helped excavate a site that proved to be rich in archeological detail. While one group of scientists examined evidence from Archaic periods, others pored over remnants of the Mississippian era nearby. Work proceeded sometimes at a snail's pace, demanding patience. Fifty days of careful observation and recording were spent finding and mapping stains just in the Mississippian sectors, which covered several acres. Altogether, the site contained perhaps as many as 10,000 prehistoric stains, every one potentially significant.

Gradually, as the research progressed, archeologists determined that Rucker's Bottom was the setting for two distinct Mississippian villages. The first existed between about A.D. 1200 and 1350 during the height of the ceremonial center near Beaverdam Creek when the people who lived at Rucker's Bottom had no elaborate fence and ditch defenses. About the time the mound center collapsed, the first village at Rucker's Bottom was abandoned, and the second one established. The center of the later settlement was only about 100 yards away from the middle of the first village. It was this second village which was enclosed by



Figure 75: An artist depicts how a Mississippian village at Rucker's Bottom might have looked.



Figure 76: Outlines of the two defensive ditches at Rucker's Bottom appear as the darkest, thickest lines in a site drawing, while the thinner, partial rectangle represents a fence.

elaborate fortifications.

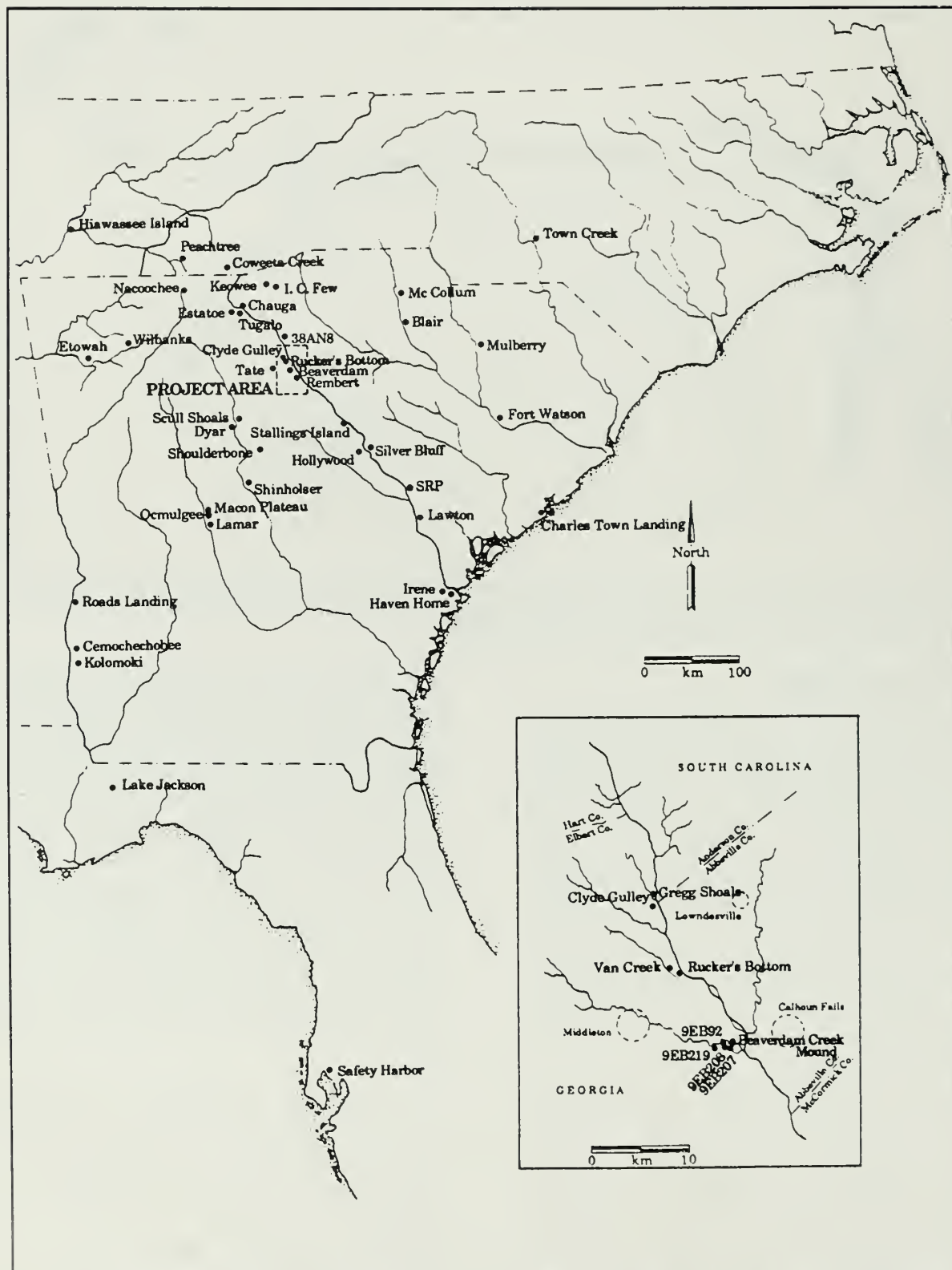
David Anderson and Joseph Schuldenrein, research team leaders, confirmed the existence of these separate villages, in part through radiocarbon dating and from differences in pottery styles found in the two areas. They further detected a span of about 20 yards between the two settlements that was relatively free of the earth stains that would indicate houses or other structures, another sign that the first community did not merely expand, but that another entirely new village developed. But why one village was abandoned for another so close by is unclear.

The two villages shared similar layouts. Houses in both were circularly arranged around a plaza where a great tree pole was erected for games. Archeologists found pits filled with hundreds of pounds of boulders, indicating where the heavy posts were once moored. Males sometimes practiced their archery skills by shooting at targets hung from such posts 30 to 40 feet overhead. They also played athletic games like chunky, the disk and spear contest, in the surrounding plaza.

A post was also central to a game that women joined in, at least by historic times when Europeans observed them. This was the single pole game; its object was to gain possession of a small hard ball and score points by throwing and hitting it against the pole higher than a designated mark. Bonus points were won by hitting an animal skull, tree limb, or some other object lodged even higher on the pole. Women threw with their hands, while men used sticks with webbing on one end. The same sticks were used for another game similar to lacrosse and reserved only for males.

The lacrosse counterpart was extremely combative, commonly leading to many injuries, and sometimes even deaths of players, who called the game "little brother of war." To play, two teams ran up and down a field, fighting for possession of the ball, and trying to fling it with their webbed sticks through goals at each end of the field to earn points.

A round council house—also called a rotunda or hot house—was also part of each village. Both of these buildings were about the same



Map 11: Important Mississippian archeological sites in the Southeast are shown, including Rucker's Bottom and Beaverdam Creek Mound excavated in the Russell Reservoir Project Area (insert).



Figure 77: A 1981 photo of Rucker's Bottom shows a series of backhoe trenches dug to follow the fortification ditch.

size, between thirteen and sixteen-and-a-half yards in diameter, twice as big as any other structures in either settlement. Stains from center support poles were found in one of the council house floor patterns; concentric circles of posts were found in the other.

Such shelters were also part of Cherokee and Creek Indian cultures several hundred years later in the Southeast. Descriptions from Europeans who saw them tell of roofs that rested on poles which ran lengthwise from a point high above the center of the buildings, as much as 25 feet above the ground. These roof poles slanted downward, supported by other poles standing upright in a circular or octagonal pattern. The roof poles continued six feet past the first circle of support poles, ending on another set of poles stuck in the ground. This second set of support posts, about five feet tall, formed another circle outside the first one. The outside ring of support posts was ribbed together with stripped branches and covered with thick clay, forming a wall. The roof was also sealed with clay, then covered with pine bark shingles. Builders left a small

smoke hole at the roof top, but because of the insulating clay even the smallest fire could easily heat the interior to a high temperature, prompting the name "hot house". Entrance was gained through a door placed at the end of a six-foot long hallway that led into the center of the structure.

The building served many functions. Dances and festivals were held there, especially in winter during bad weather. Guests from outside the village also sometimes slept in the council house, as well as anyone else who had no other place to stay, including the sick requiring isolation. But the shelter's most important purpose was to provide space for the chief and his council to meet in winter.

Council houses may have been common during the Mississippian period in villages that were part of weak chiefdoms, according to Chester DePratter. A chiefdom was weak when the leader resided at a ceremonial center, such as the one near Beaverdam Creek, but his followers who lived at other locations retained considerable autonomy.

Many chiefdoms strengthened as the Missis-

Mississippian tradition developed, gaining both people and territory within their purview until they became almost the equivalent of small states. But even among these most powerful and complex chiefdoms, some village independence remained.

How people governed themselves at the village level during the Mississippian era is not known for certain. Scientists have gained insight, however, into village life through the writings of Europeans who arrived in the Southeast later and observed the Creeks and Cherokees. No viable mound centers remained by the time the English arrived in the 1600's; and there were no more powerful chiefdoms. Gone, too, was use of most of the striking ceremonial artwork so important when the mounds dominated.

Diseases brought to North America in the 1500's by Spanish explorers killed thousands of Indians, and many others were deliberately slain by the treasure seekers, some of whom considered the native people they met less than human. Those they didn't slaughter, they may have robbed, taking the precious corn and other foods the Indians depended on for survival. The Mississippian culture collapsed possibly as a result of these many deaths and stresses.

Nonetheless, what the English saw and recorded of village government 150 years later was probably similar to what existed during the Mississippian tradition, at least in the outlying villages. During the Mississippian era, such outlying villages were the political backwaters of the mound-based chiefdoms.

A village like either of those at Rucker's Bottom probably would have had its own village leader or headman, who was the representative of the more important leader who resided at a ceremonial mound. The

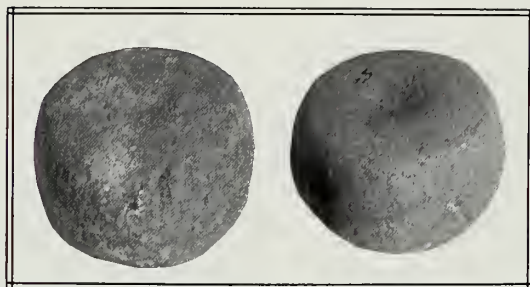


Figure 79: Many smooth, pitted cobbles were found at Rucker's Bottom. Some were possibly chunky stones for the spear game.

authority of the local headman probably depended to some extent on the cooperation of those who lived under his sway. At least by the time the English arrived, the village chief could sometimes be removed from office if his people grew dissatisfied. The English also observed that to make any important

decisions, the village chief convened the council composed of important men of the settlement. (Generally, politics was left to men.)

The notion, therefore, of a powerful village chief among early people in the Southeast is inaccurate, if ceremonial mound center chiefs are excluded. Certainly by the time the English came on the scene, the village chief led only with considerable help from the council. And even then, the chief was not responsible for settling many important matters because vital decisions were instead often made by clans and lineage groups, which were traced through women.

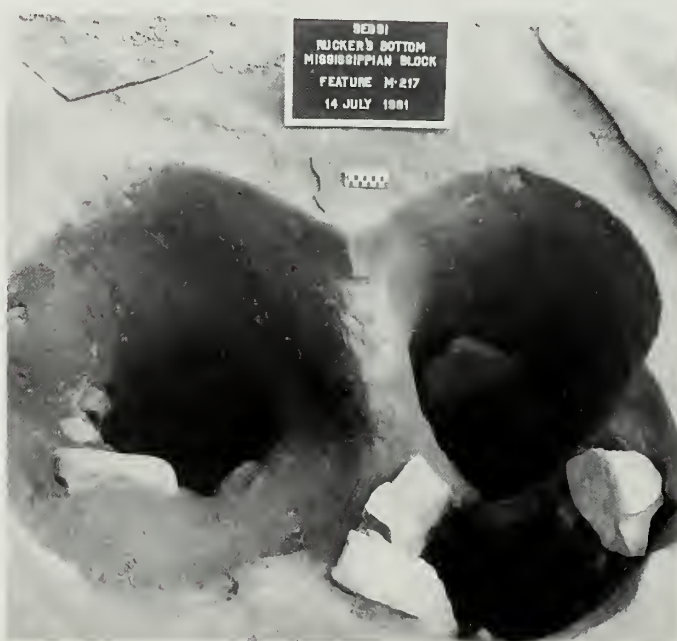


Figure 80: Experts think these holes where boulders were found once held posts for games in the village plaza at Rucker's Bottom.

For example, a father was not considered related to his own son, not part of his son's lineage. Instead, the boy's upbringing was the responsibility of his mother's brother, even though the boy's father lived with his wife and son in the same house. Women also owned the houses, and probably the farm plots where they raised food for their relatives. Planting was a communal effort for both women and men, although women were primarily responsible for growing crops.

Clans were comprised of various lineages, possibly distant blood relations, associating themselves with the same animals or natural phenomena, such as eagles or the wind. Being part of a clan sometimes meant heavy responsibilities. If a member was murdered, for example, the other clan members, not the village chief and council, were obligated to avenge the death. Senior members of clans and lineages also enforced other rules, including strict prohibitions against adultery, and they settled disputes with other lineages. They also held power of approval over marriage proposals involving the group's females.

What was left, disputes which couldn't be resolved by lineages and clans, planning of public works, negotiations with visiting ambassadors from other villages, and matters of war, were the issues the chief and council considered.

Their deliberations, in winter when they met indoors, seemed to take place in a hazy cloud of dark mystery, at least to English onlookers. The windowless council house was lit by a campfire or sometimes by river cane arranged to burn in spiral shapes on an earth mound in the building's center. Many traces of this burnt cane were found in the Rucker's Bottom excavation.



Figure 81: Creek Indians held rituals in the "square ground" in warm weather.

As the fire burned, the building grew rapidly hotter inside its thick clay insulation. Council members further warmed themselves by drinking a bitter hot drink, containing much caffeine, from a ceremonial conch shell or a special cup. Parched holly leaves and stems were boiled in an adjacent building to prepare this beverage called a-cee or black tea. Evidence of such adjoining buildings was found in both Rucker's Bottom villages. Possibly they were supply houses for items used inside the council house, or perhaps homes for village leaders.

Early English observers in North America noted that the chief or Micco drank the black tea first, then the rest of the council followed in strict hierarchical order. Status was also reflected in the seating arrangement, but rank wasn't necessarily permanent. A councilor could achieve higher status by great valor in war or exemplary peacetime accomplishment. Everyone sat on rectangular benches resembling cots. Animal skins and cane mats stretched across the wooden frames, which rested on four short posts or stilts stuck in the ground. Similar furniture served as beds and seating within their homes. Inside the council

house, the cots were arranged in a single circle or in several circular tiers, similar to a theater-in-the-round, depending on the number of members.

After the chief drank black tea, he smoked a pipe filled with a mixture of plants, perhaps including tobacco, which originated in North America. With much solemnity, the leader blew smoke to the east, then towards the other three primary directions. Then he passed the pipe to his next in rank, who took his turn, followed by his subordinate, and so on until everyone had smoked.

Only then did the meeting officially begin. Despite the importance of rank, all councilors had the right to speak, and eloquence was greatly admired. The advice of older men known for their wisdom was carefully considered, but on all issues the gathering sought consensus. With all the preambles and the desire for unanimity, meetings could stretch on for hours.

In warmer months, Creek Indian councils of historic times met in the open air in a place called the square ground. Sheds with benches inside, resembling those in the council house, were placed in a square arrangement facing one another. The sheds, covered by roofs, had at least one wall. Sometimes there were three walls, which were often painted with animals or mythical creatures such as the evil Uktena, a dragon-like beast with antlers and wings. The openings where the fourth walls would have been faced the square, allowing a view of other participants sitting in the rest of the sheds.

No square grounds have been found within Mississippian sites.

However, at Rucker's Bottom, archeologists discovered a square pattern of postmolds in the later village that possibly represented something similar. This postmold pattern was detected near the council house, reflecting an arrangement similar to later Creek towns. While the pattern could have been from a former house, no hearths or storage pits like those found in other residences at the site were uncovered. Also, there were no remnants of internal support posts. But unlike most later Creek square grounds, this one once had four big posts at the corners that possibly supported a roof covering the entire square. And, postmolds indicated there were two possible entrances along the sides, whereas the Creek square ground was entered through the corners of the square. Nevertheless, as in later square grounds, the postmold pattern matched the cardinal directions of north, south, east, and west, suggesting that this could have been a forerunner to the square ground, a place where the chief and council met in warm weather.

Other postmolds indicated more than 40 structures within the two Rucker's Bottom



Figure 82: Bark or thatch formed roofs of some Mississippian houses, and walls were made of mud and branches. Archeologists built a Mississippian-like shelter at Etowah Mounds.

villages; and experts suspect that signs of even more shelters were disguised amid the many postmolds accumulated over several generations of building and rebuilding. Most houses in the first settlement were round, with diameters between 13 and 26 feet. In the second village, rectangular buildings predominated, although round ones also existed.

In both villages, there was evidence of many small structures, which in most cases probably represented store rooms (sometimes called *barbacoas*). These storage sheds probably sat on stilts greased to keep out varmints. Some of the other small structures may have served as kitchens, steam rooms, or menstrual houses; Europeans noted that menstruating women were segregated from the population as a matter of purification.

The steam houses used by historical Indians were tightly-sealed buildings where heated rocks were moistened with a mixture of water and ground parsnips. Sitting in the resulting steam, then immediately swimming in the river, was considered therapeutic.

Kitchens at Rucker's Bottom were possibly partially open sheds. There were also perhaps outdoor hearths. Maybe the villagers gathered around these open fires at night to tell the important stories passed on from one generation to the next. Europeans relayed some of the rich lore they heard, such as the old Cherokee myth about a time just after earth's creation when all animals and plants were supposed to stay awake for seven days and seven nights. Only the cougar, the owl, and a few other animals and plants persevered until the week's end. Because of their endurance, the cougar and the owl were rewarded with the ability to see well at night, while the pine, spruce, and other evergreens were allowed to keep their leaves year round. The rest of the trees were forever forced to lose their leaves once a year.

Both winter and summer houses were constructed at Rucker's Bottom. Researchers concluded that tightly-spaced postmolds found in well-defined patterns were remnants of

Different Times, Different Tastes

The last villagers to inhabit Rucker's Bottom used special treatments on bowl and jar rims more often than either the potters at the earlier village or those at neighboring Beaverdam Creek Mound. For example, they might fold the vessel tops or add extra strips of clay to thicken the rims. Often, they decorated these thickened rims with punctations made by punching sharp sticks into the clay.

Sometimes the potters pinched the clay to create vertical wave designs. Occasionally, they added a small clay piece onto the pot sides. Called nodes, these projections were also sometimes pressed with a stick for more decoration. A potter might also carve incised lines into the vessel's rim.

Despite the broader treatment of rims at the second village, its pottery reflected fairly similar designs compared to the ceramics of the first village and those of the mound at Beaverdam Creek. The popularity of particular designs, however, did change over time.

winter homes, which, like the council house, were covered with thick clay. Historical accounts describe such shelters with low doors leading into L-shaped entranceways that blocked cold winds.

A cultural paradox was that the people admired an individual's ability to withstand cold and wet, but kept their winter homes quite warm with the combination of insulating clay walls and indoor hearth. The flames, stoked in the morning, unleashed a cloud of smoke, which could only partly escape through a single ceiling hole, making the interior quite smokey. By nightfall, the fire was reduced to hot coals covered in ashes, radiating heat throughout the small space. If temperatures dropped too much in the night, someone merely poked the ashes with a stick to expose the red coals underneath. Little additional warmth was needed from clothing, which suited the inhabitants, who preferred to wear as few garments as necessary. Both sexes usually chose not to cover their upper bodies

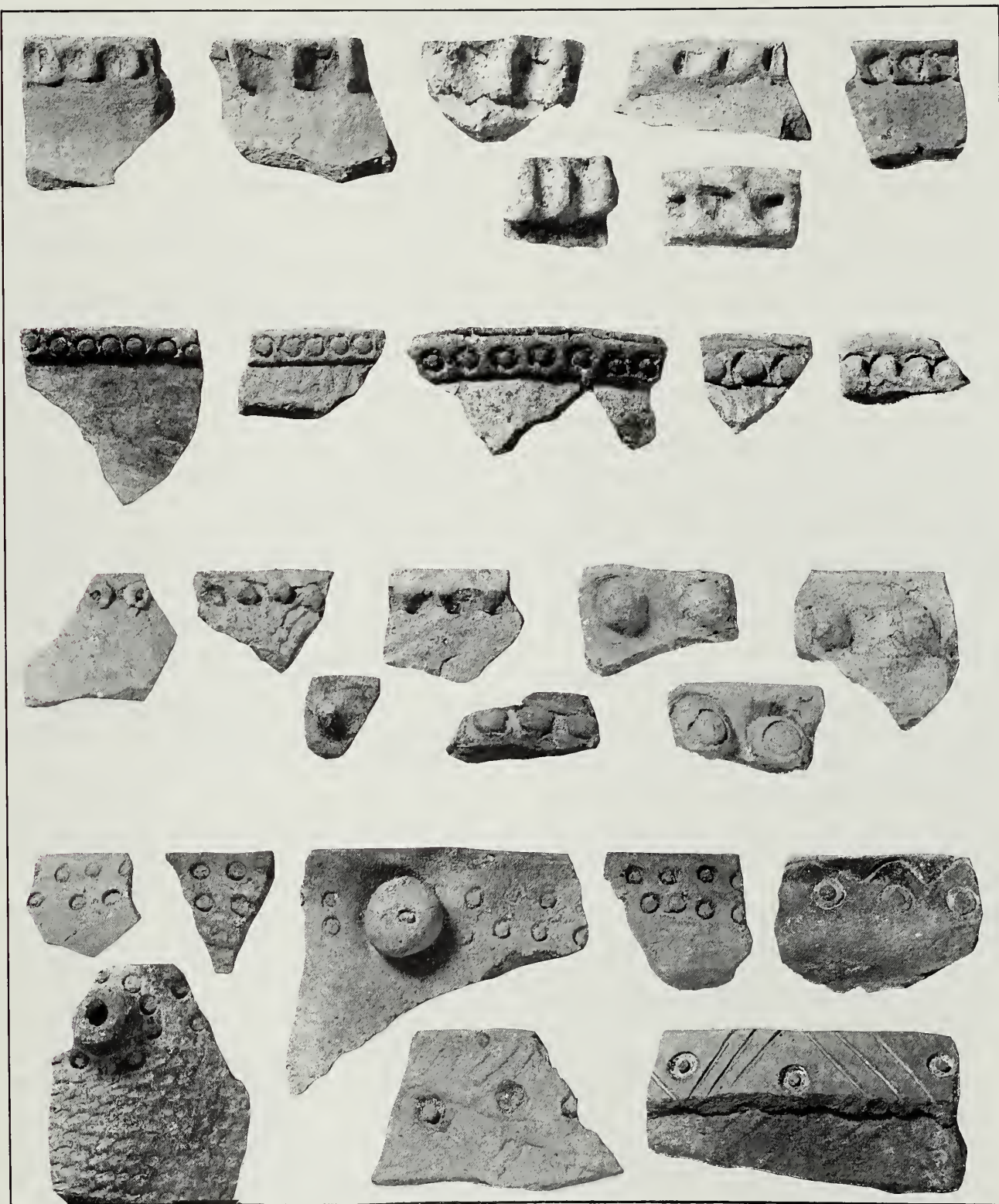


Figure 83: Potters decorated vessel rims in many ways, sometimes folding and pinching them or adding small bits of clay. They used sharp sticks to punctate or etch designs.

except in winter when they wore loose-fitting mantles of animal furs and skins. In warm months, the men wore only loin cloths, and the women dressed in knee-length skirts.

Summer homes were built much simpler, with greater spaces between wall posts and only a thin clay coating, if any. In historic times, some houses had openings near the roof lines to allow in fresh air, but others had no openings other than entrances because of a desire to keep out insects.

Excavations in one likely winter house at Rucker's Bottom were especially productive. Rectangular, with possible rounded corners, the dwelling left a postmold pattern measuring about seven-and-a-half yards long on one side and six-and-a-half yards on the other. Archeologists decided that the house had been abandoned, partly cleaned, and then used as a refuse dump. This complicated determining which items belonged to residents of the house, and which ones were merely tossed in later as trash.

The locations of sherds, however, did help clear the picture somewhat. The most fragments were found in one side of the house near the door, the place where larger bowls and jars were apparently kept. This spot was probably reserved for food preparation and storage because animal bones and plant remains were also found there. In contrast, plain, undecorated fragments of the sort associated with bowls, small jars, and eating dishes, appeared throughout the structure, suggesting that food was consumed everywhere in the house.

Residents of the winter house probably played indoor games to amuse themselves because small pottery disks associated with the pastimes were also found. The ubiquitous, prehistoric activity, toolmaking, also occurred within the shelter because small, stone flakes were found. Most toolmaking at Rucker's Bottom, however, took place outdoors. The final glimpse into the residents' possible habits was found just outside the door. A cluster of bones, including skulls, from small and large

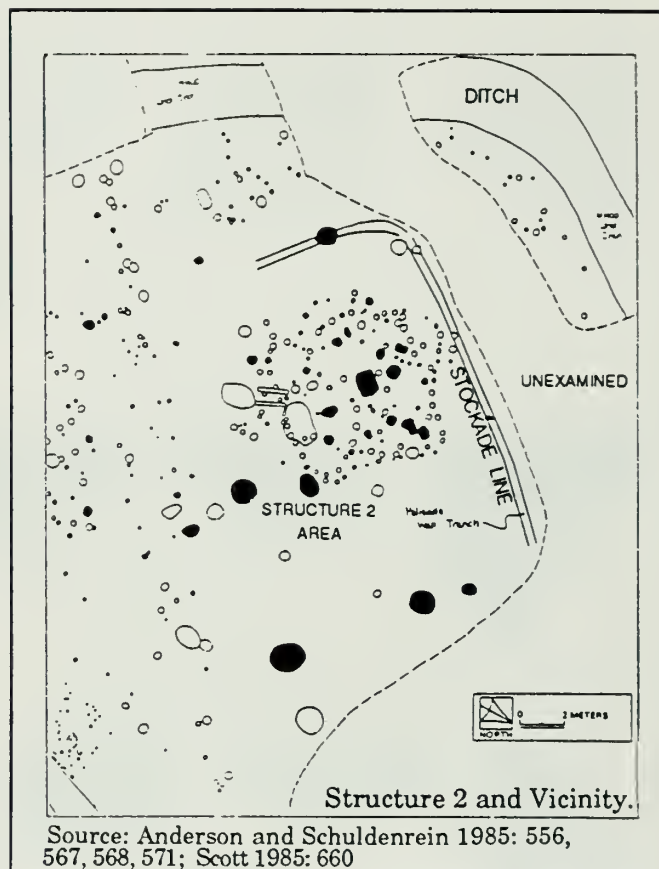


Figure 84: A spot near the door of a probable winter house, identified here as Structure 2, was apparently used for preparing and storing food.

animals was unearthed there, indicating that the people either buried or stacked at least some of their garbage in the spot.

Human burial places at Rucker's Bottom changed over time. The earlier villagers dug graves throughout the community, sometimes below the floors of their houses, or just outside the dwellings, or in the earth beneath the plaza. In the second village, most burials appeared between the middle of the settlement and the river. The concept of a cemetery was apparently developing because no graves at all were found in the half of the village farthest from the river. There were also some graves outside the village's ditch and fence perimeter.

In some Mississippian communities, there were formal mortuary buildings placed on mounds or set aside by fences. Such structures sometimes served as charnel houses where

corpses were kept until they deteriorated and only the bones remained. The bones were then buried. This practice was apparently not followed at Rucker's Bottom.

A burial custom that was followed, at least in several instances, was putting the remains of children into clay pots. A miniature pot and a ceramic pin found near one of these burials were likely grave goods.

Clay wares in graves were also unearthed at Simpson's Field on the South Carolina side of the study area. Investigators detected a small, Mississippian homestead where one or several dwellings once stood. Beneath the floor of an identified shelter, they discovered two burials. With one, the poorly preserved remains of a child about 10 years old, they found five, miniature pots. The pots, standing only from two-and-a-half to five inches tall, were well preserved, apart from some nicks from a plow which had passed over them. Despite their smallness, the artifacts provided good examples of the sorts of jars, bowls, and bottles Mississippian people in the area used.

The other grave at Simpson's Field, which belonged to a woman, held a well-preserved vessel of exceptional beauty in simplicity and form. Undecorated, the pot was about three-

and-a-half inches tall with a square rim, rather than the usual circular one. The rim of the pot flowed upwards in places, forming peaks, while small clay nodes were lodged into the pot's sides for handles.

Few grave artifacts appeared at Rucker's Bottom, suggesting an equality among the people which may have grown over time because more objects were found with earlier village burials. About half of the graves in the first village revealed goods, compared with about one in ten of the later settlement's burials. None of the objects were especially remarkable, and they were as likely to be found in the graves of females as males. Male burials were perhaps slightly more elaborate, with pots or beads predominating among the objects found, while the female burials tended to contain pins, rattles, or stone tools. The grave goods at both villages proved to be less elaborate than those found at Beaverdam Creek Mound where more of the elite lived.

Individuals who did receive special burial attention at Rucker's Bottom included a man found with 500 small, perforated shells from the coast of the Atlantic Ocean. The shells were probably part of a breast plate or other chest garment that had disintegrated. A chert



Figure 85: Five miniature pots found at Simpson's Field included a bottle (rear, left) with punctations, and an urn-shaped vessel (front, far left). The rest are jars.

arrowhead was found by his shoulder, suggesting he was buried with his bow and arrow.

The grave of a woman about 30 was unusual because she appeared to have been placed in a small log tomb that had rotted away. Marks from short posts remained in the burial pit that apparently were once part of the tomb. She was also once wrapped in a shroud that left stains in the soil as it disintegrated. A small, battered rock, a tool of some sort, was also in her grave.

Archeologists noticed that some burials appeared to be clustered close to one another, perhaps reflecting family or clan ties, and that the majority of corpses were arranged in partial fetal positions. There was, however, a

notable exception. Three, outstretched skeletons were discovered sharing a single grave. Facing upward and lying side by side, the remains included those of a child about six or seven and a woman between 25 and 30. Her arm rested on the chest of the third skeleton, the age and sex of which could not be determined. If this was a male, the three may represent a family that died together, perhaps through disease or possibly as victims of a raiding party from a rival chiefdom.

Altogether, archeologists discovered more than 100 burials in the two villages. A sample of 24 burials was closely studied by scientists at Wake Forest University, under the direction of David Weaver. They determined that only



Figure 86: A pot found with a woman's grave at Simpson's Field measured less than four inches tall. The square rims ended in unusual peaks, and there were nodes on the sides for handles.



Figure 87: Three skeletons, maybe a family who died together, were found. Archeologists treat human burials respectfully, typically reburying remains if descendants are found and request it.



Figure 88: Two punctated nodes are visible near the rim of a Mississippian pot found in the Gregg Shoals excavations.

about a third of the people lived past age 30. They also learned that the villagers suffered much more serious dental problems and bone diseases than those buried at Beaverdam Creek Mound.

Dental disease often became so acute that it spread sickness to bones throughout the body, sometimes causing death. Bone tests showed frequent evidence of osteophytes, abnormal growths, and osteomyelitis, infection and inflammation of bone marrow. In contrast, the only serious dental problems at the mound site occurred in a few adult women, and were probably caused by the stresses of pregnancy.

These skeletal analyses established that Rucker's Bottom residents weren't as healthy as those at the ceremonial center, perhaps because the elite at the mound enjoyed a superior diet. The studies also uncovered other facts. Women at both the mound and villages averaged a little over five feet tall, while men from the villages stood about five-and-a-half

feet tall. Based on a small number of samples, men at the mound possibly were slightly taller, perhaps another indication of superior living conditions.

Residents of the early village at Rucker's Bottom depended on a variety of food sources, including fish, small mammals, and shellfish caught in the Savannah River and Van Creek. Bone chemistry analysis detected higher zinc levels in their burial remains than in those of the later villagers, indicating they ate more meat.

When the second village existed, fewer smaller animals were eaten, and deer became more important. A possible explanation is that the later people spent more time farming and building defenses, so when they hunted, they pursued primarily bigger game that would provide the most meat for their efforts. Roasting deer legs over an open fire was a popular way for them to prepare food.

Disposed bones from game were often

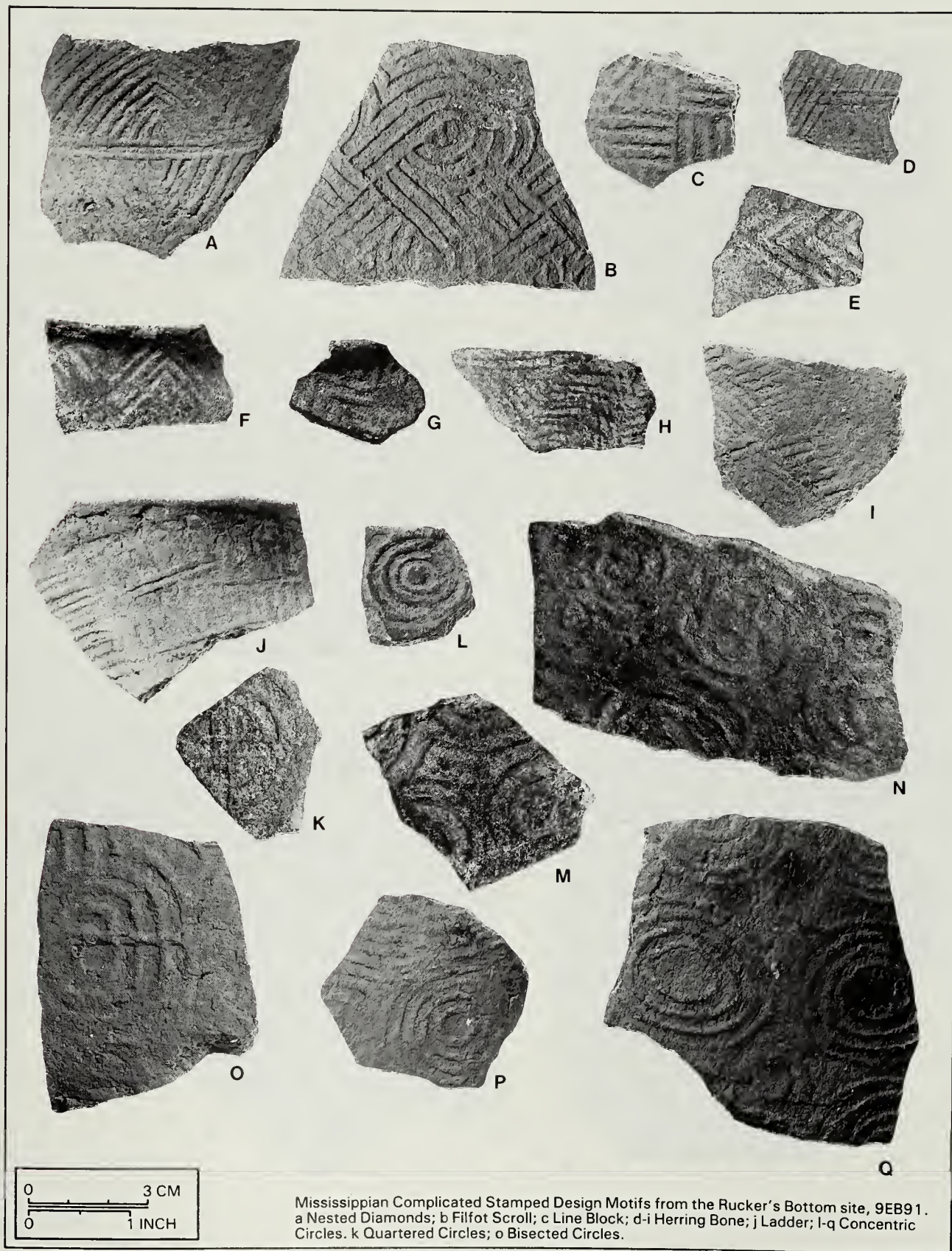


Figure 89: Many Mississippian designs were found on Rucker's Bottom ceramics.

gnawed by animals, presumably dogs, but surprisingly no dog remains were uncovered. Interestingly, some of the gnawed bones came from bears. Later Indians probably wouldn't have allowed their dogs to chew bear bones because they believed the bear's spirit would come back to haunt them and bring misfortune on their people. In the same vein, Indian hunters asked most animals for forgiveness before they killed them, and any hunter who omitted this ritual risked illness caused by the animal's angry spirit.

Many turkey and turtle remains surfaced at both villages, although the turtles were probably more important for their shells, which were used for containers and rattles. Residents of both villages also ate the same wild plant foods such as hickory nuts, acorns, maypops, and grapes. But corn was perhaps the only crop both settlements grew. Yet, for the later villagers, who may have grown more corn because of a greater population, corn was proportionally less important in their diets. Instead, the later villagers apparently ate many more acorns than the earlier inhabitants.

This jump in acorn consumption was surprising because acorns require considerable preparation before they are edible. Unlike hickory nuts, which were apparently eaten less often by the later villagers, acorns have a shorter storage life and deliver less food for the effort required. Acorns had to be boiled to remove bitter tannic acid, then pounded into a pulp, which was dried to form meal.

Josselyn Moore of the University of Michigan theorized that to grow more corn, villagers had to clear more fields. As they leveled fields for planting, they probably eliminated many hickory trees in the process. Then, when the fields were eventually allowed to lay fallow, the first trees to take root were pines, followed by acorn-bearing oaks. Only in older forests did the hickories grow. The consumption of so many acorns probably also meant that the later villagers weren't producing enough food for their needs. In historical times, Indians ate acorns to ward off starvation when other foods were scarce.

There were also other signs, besides the bone diseases that plagued them and their struggle for adequate food, that the people of both villages didn't have easy lives. Many of the animal bones found had been broken or hacked into pieces, apparently to fit into cooking pots. This indicated cooks were struggling to squeeze every possible morsel, including marrow, from the bones.

Perhaps the villagers eventually gave up the struggle altogether and moved somewhere far beyond the Savannah River in hopes of finding better conditions. This is one possible explanation for their abrupt disappearance. Whatever the cause, with the end of the second village at Rucker's Bottom, a stretch of repeated human existence on the river bluff, beginning with PaleoIndians of the Ice Age and continuing throughout much of prehistory, came to a close.





Figure 90: Mississippian pots, like these from Rucker's Bottom, were often much bigger than earlier vessels.



Figure 91: Etowah Mounds flourished during the Mississippian era. This mound, with the Etowah River in the backdrop, was excavated and rebuilt to appear as it did when the Indians used it.

Chapter 10: Conquistadors and a Princess

A.D. 1450 to 1600 *The Transition Era*

While only one ceremonial mound was excavated in the Russell investigations, there were others spread out along the Savannah River and its tributaries. The elite at these various mound centers wielded considerable power over the Mississippian people, but, like the Beaverdam Creek Mound, many of these centers were abandoned for reasons that can only be conjectured.

A few of the mound centers began functioning earlier than the one near Beaverdam Creek; others existed closer to the time of the reservoir mound; while still others flourished later. Perhaps the importance of one center declined and another increased because of the death of a leader or the emergence of a new leader elsewhere who had greater military skill or charisma.

During the waning years of the center at Beaverdam Creek, for example, use of elaborate grave goods may have declined, indicating that the elite became impoverished. A similar reduction of burial artifacts occurred at a mound called Hollywood near Augusta, Georgia. At that mound's peak, notables were buried with such riches as copper plates with figures of men in eagle costumes, a beaker engraved with rattlesnakes, and a smoking pipe with the bowl sitting in a carved human lap.

Just before the entire lower Savannah River area emptied of people, three ceremonial centers apparently dominated—Rembert, near the Russell Reservoir area; Silver Bluff, in South Carolina near present-day Augusta; and Irene, near the city of Savannah on Georgia's Atlantic Coast.

Of the three mound centers, the most is known about Irene. Located about 170 miles

south of the Beaverdam Creek site, Irene had two mounds, as well as a rectangular building possibly used as a mortuary. There was also a council house, which was about 40 yards in diameter. Early pioneers described both Rembert and Silver Bluff as substantial centers as well, with each having several mounds. But plowing in the mid-1800's destroyed much of the mounds before archeologists could thoroughly examine them. Even so, Rembert still yielded many artifacts.

People departed from all three centers—Irene, Rembert, and Silver Bluff—about the same time, when much of the Savannah River territory was abandoned. There are indications that a wide swath of western South Carolina was deserted then, too. Insight into a probable cause for the exodus came with the discovery of the intensified fortifications for the second village at Rucker's Bottom: Military defenses suggest rising tensions and outright war.

Growing dependence on river floodplains for farming, and increasing numbers of people competing for that land, fueled Mississippian conflicts, thinks Lewis Larson. Larson excavated the major mound site north of Atlanta, Georgia, called Etowah, which was protected similarly to Rucker's Bottom with fortifications.

Indisputably, the population had been steadily increasing along the Savannah River during the Mississippian years; both the number of places in the reservoir area where Indians spent time and the quantity of objects they left behind steadily grew as years passed. Because of the growing population, people could no longer freely rove wherever they liked. No longer could they establish a home-

stead, and then move easily somewhere else if neighbors settled too close or in some other way were irksome. Long-term claims were now staked on fertile stretches of land; and walking away to avoid a dispute was less of an option.

Jockeying for power and its rewards among ceremonial centers likely contributed to the escalating tensions. Important matters were at stake and worth fighting for because the strength and reach of a ceremonial center's authority influenced followers' access to the best farmland and hunting territories and their ease in using trade routes. And, for some leaders, perhaps ambition flared to rule more subjects and to win more tributes of food and valued objects from them.

Defensive palisades and ditches aside, however, the Russell studies didn't reveal other signs of battle. No burned house supports or singed stockade posts were found, for example. However, since a comparatively small area was examined, more excavations might produce concrete evidence of fighting.

Possibly there were other factors involved in the abandonment of so much territory near the Savannah River. Research by David Anderson and others has recently provided more clues as to what might have happened. Nature, for instance, could have played a detrimental role in residents' lives. Scientists from the University of Arkansas Tree Ring Laboratory studying ancient cypress tree trunks detected a slight drop in average rainfall in southwestern South Carolina during the period. Rain may have decreased enough throughout the region to cause increased crop failures, which would have hit the agriculturally-dependent inhabitants hard. Certainly, the evidence showed that villagers at Rucker's Bottom struggled to feed themselves.

Adding a bit more to the picture of what might have happened was the rise of two important chiefdoms—the Ocute in central Georgia and the Cofitachequi in central and eastern South Carolina. Both chiefdoms became important about the same time that the



Figure 92: "The Falcon Warrior," carved on a copper plate, carries a severed head or head rattle and a ceremonial mace. The drawing completes missing pieces of the figure depicted on the next page.

reservoir area emptied of people. Scientists have also determined that the Ocute experienced a big population jump that could have resulted from an influx of people who formerly lived near the Savannah River. Bolstering this theory was the discovery by Jerald Ledbetter and Jack Wynn of pottery within Ocute boundaries decorated similarly to ceramics used along the Savannah River before the abandonment. But much more research is required to justify the conclusion that reservoir area inhabitants moved into the Ocute chiefdom's territory.

A few mound centers at the headwaters of the Savannah, for some reason, continued to be occupied even after most of the river was abandoned. These centers in north Georgia and northern South Carolina remained active even into historic times, when they became Cherokee villages. Among them were Chauga in South Carolina, about 37 miles north of the



Figure 93: The copper figure, found at Etowah Mounds, wears an elaborate ceremonial headdress.



Figure 94: A pair of carved marble statues of a man and woman, still showing red paint, were found in an Etowah burial.

mouth of Beaverdam Creek; and, nearby in Georgia, Tugalo and Estatoe.

But from those points south along the Savannah all the way to the Atlantic Ocean, people apparently disappeared from all other mound centers, villages, and homesteads. Soon the land was reclaimed by the brush and trees until little remained to suggest that once thousands of people had considered the area home. In fact, the Spanish found the land near the Savannah River so desolate that they referred to it as a desert.

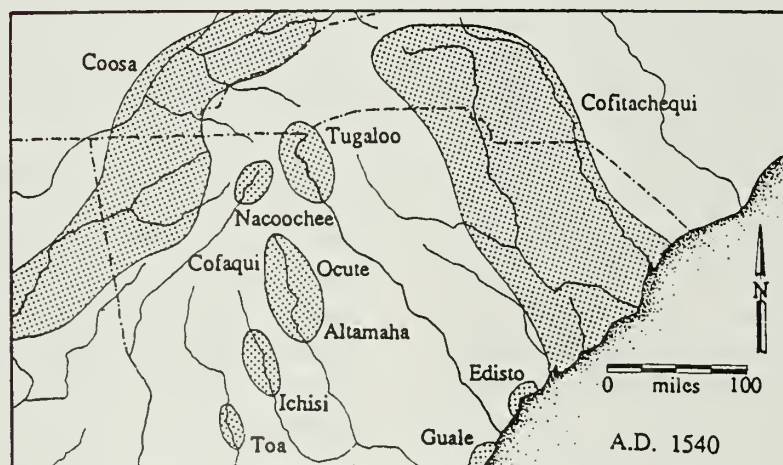
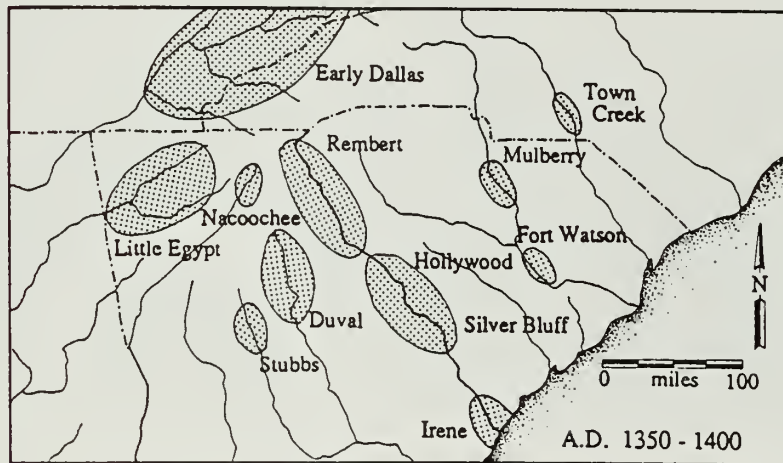
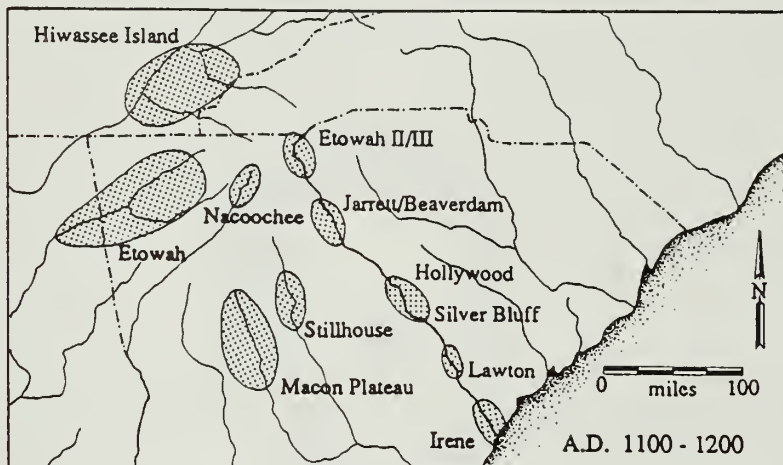
Those inhabitants the Spanish did encounter when they arrived in the sixteenth century may have wished they had gone undiscovered as well. The explorers' appearance led to kidnapping, robbery, disease, and death for many of the Indians. For their part, the Spanish also suffered. Many of them died in battles or from

sickness and hunger. Peace was more important to some than others among both the Spanish and the native people. But their cultures were so alien to one another, differences compounded by language barriers, that even those of good will must have been hard pressed to determine friend from foe. Once blood spilled, revenge, hate, and fear easily overrode any restraint.

For the Indians, seeing a Spanish ship appear on the horizon, billowing sails spread like some giant bird's wings, must have been awe-inspiring, a feeling magnified when the passengers aboard came into focus. The metal helmets, favored by some conquistadors, glinting in the sunlight, must have fascinated the Indians. They must have also stared uncomprehendingly at the foreigners' shoes and other clothing, which included heavily quilted material worn as armor. Imagine what they must have thought when the ship reached shore and the Spanish lowered the gangplank to lead off their horses. The Indians had never seen a horse before. To climb on the back of such a creature and force it to obey your will must have given the Spanish enormous power in the Indians' eyes.

If they were afraid of these remarkable strangers, however, many overcame their fear and welcomed the Spanish with gifts and feasting. But their friendly gestures often were rewarded with treachery. The Spanish had braved the dangers of an unknown land to seek great wealth, and some were willing to do almost anything to obtain it.

One of the first expeditions to arrive in South Carolina was directed by such an ambitious man, Lucas Vazquez de Allyon. His conquistadors, who arrived in 1521, gained the confidence of a group of Indians, then invited them aboard their two ships. Once the Indians were on the ships and unable to escape, they were taken hostage. The Spanish intended to sell the captives as slaves at Hispaniola, the island now called the Dominican Republic. But as they crossed the ocean, one ship sank, drowning everyone aboard. Condi-



Map 12: Hypothetical chiefdom boundaries in the South Atlantic Region illustrate the expansion and subsequent disappearance of these societies in the Savannah River Valley.



Figure 95: Hernando de Soto was among the earliest Europeans to visit Georgia and South Carolina territory in his quest for gold. The search ultimately cost him his life and the lives of many others.

tions aboard the other vessel steadily deteriorated. The Indians refused to eat the unfamiliar Spanish food, and many became ill and died. Survivors were so pitiable that when the ship finally reached Hispaniola, Spanish authorities set them free. De Allyon, however, kept one slave for himself, whom he took to Europe for display.

De Allyon returned to South Carolina in 1526 with the goal of establishing a colony, but illness and food shortages doomed the effort.

Hernando de Soto was the next Spaniard the Indians in South Carolina and Georgia met, and the results were equally disastrous for many of them. Already rich after participating in the plunder of the Incas in Peru, de

Soto desired even more wealth. He was sure gold existed in the land that is now the United States, and gathered around him a formidable army to help him find it.

His *entrada*, as the exploration is called, involved an entourage of more than 600 men, as well as sundry servants and slaves. They brought with them over 200 horses and many pigs. They planned to butcher the swine as needed for food. Massive Irish wolfhounds accompanied the explorers to serve a more sinister purpose.

De Soto's army landed at Tampa Bay in "La Florida" in 1539. They fought many skirmishes with Indians along the way, before finally arriving near Tallahassee, where they spent the winter, continuing to battle Indians

Fragments of the Past

The earthen pyramid dominates the landscape, towering 60 feet over a quiet, pastoral setting along the winding Black Warrior River. So massive is the pyramid, built by human hands alone, that its base covers two acres. There is a steep climb to the top, but the effort is rewarded with a spectacular view of many of the 19 other smaller earthworks forming what was once one of the most powerful communities in North America.

Mound State Monument, a National Historic Landmark in west central Alabama, once was home to possibly 3,000 people between A.D. 1000 and 1500. Excavations by the Civilian Conservation Corps in the 1930's revealed more than 2,500 ancient human burials and 1,000 whole ceramic vessels. Today, a museum built by the National Park Service, along with village and temple reconstructions, help explain the Mississippian customs practiced by the long-vanished residents.

Not far from the mounds, the thousands of artifacts, soil samples, archeologists' notes, and other materials accumulated during the Russell investigations are stored. The Alabama State Museum of Natural History houses the collection in a repository designed to protect the irreplaceable. Here, within a windowless building where humidity and temperature are perpetually controlled and monitored, the findings of years of research by hundreds of scientists are organized into orderly rows of boxes. The University of Alabama won the contract to store the collection in Moundville by offering a facility with few equals.

Safeguarding the materials is crucial to substantiate what was learned and to preserve vital information for future researchers. As scientific methods improve, new insights may be culled from the exhaustive documentation from the years of the Russell studies. The findings are acutely indispensable because many of the locations examined are now under water. The many maps, statistical studies, geologic reports, photographs, and artifacts will help later experts visualize the lost sites for their own analyses. Eventually, their efforts may solve more of the mysteries of prehistoric and historic life along the Savannah River.

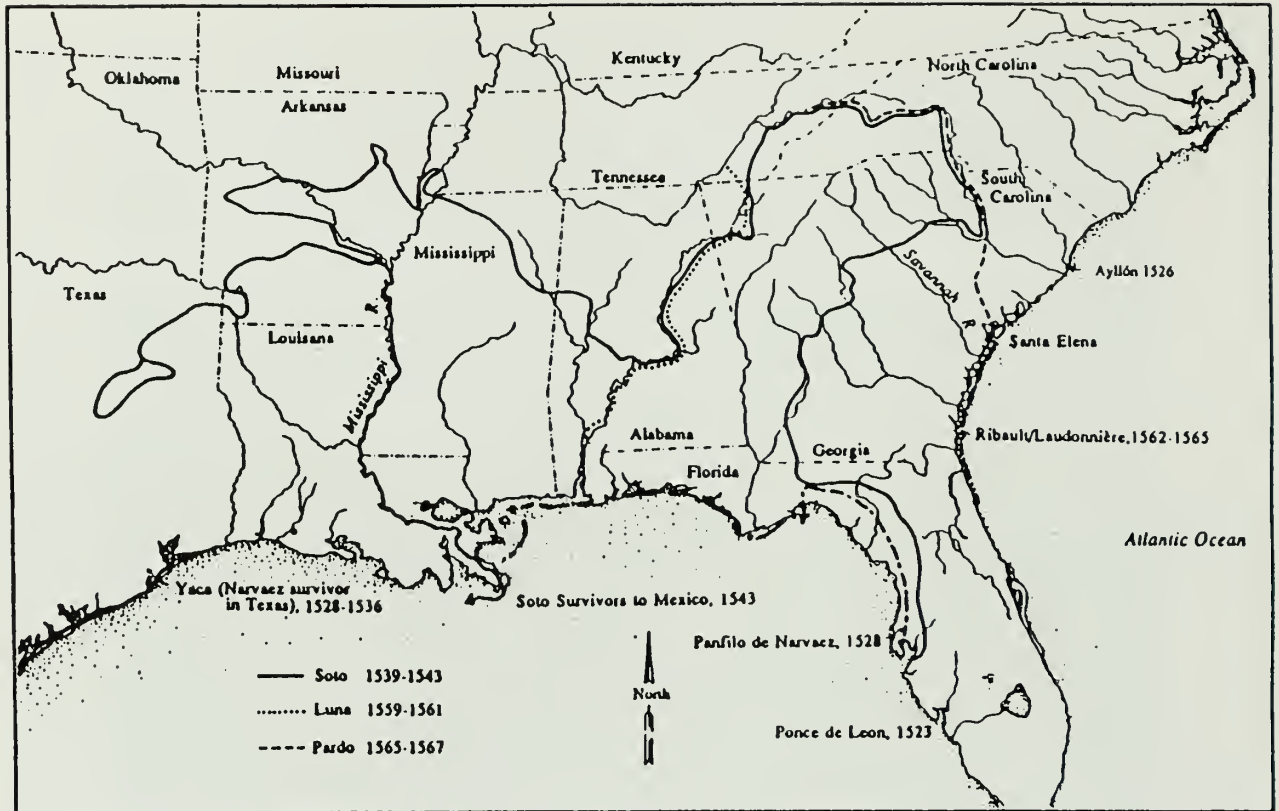
Cataloguing the mountain of data required endless hours, according to Eugene Futato, museum senior research archeologist. Researchers, like everyone else, vary in their degrees of neatness, and when their various boxes of documents and specimens arrived, peering into them "was like going through peoples' underwear drawers. You find out who's organized and who's not," he says, smiling. By the end of the curators' work, however, all disorganization was gone. Inventories were made and numbers assigned to separate findings from different sites. Documents were also arranged by number, and filed in special acid-free folders to protect them. These, along with specimens numbered and stored in small bags, fill several hundred, low-acid boxes designed expressly for the museum. Computer records detail the contents and origins of individual boxes, as well as the photographs and other objects kept apart for even more stringent protection.

Motion sensors, locks, and alarms are in place to thwart any thieves intent on plundering the collection. The temperature and humidity controls, smoke and gas alarms, sprinkler system, and many fire extinguishers guard against other dangers, in a concentrated effort to secure precious fragments of the past for the future.

and finding no gold. In the spring, they set out for Georgia, led by Florida Indians, including a boy of 17 named Perico. Guiding de Soto was a perilous job, because if he became displeased he unleashed the wolfhounds. Trained to be vicious, the beasts would maim or kill the offending guide.

Perico was perhaps less vulnerable to such treatment because of his value as a translator. He spoke a language that a Spaniard who served under de Soto understood. When the

explorers encountered a new group of Indians, Perico was often summoned to talk with them, then to translate for the Spaniard who conveyed the information to de Soto. Sometimes a chain of Indian translators was used, passing along ideas in different languages until they could be translated into a language understood by the Spaniard. Doubtlessly, meaning was lost and misunderstood in the mix of tongues, but Perico was important nonetheless. It was he who triggered the march north when he



Map 13: The trail followed by Hernando de Soto's army is traced in the solid dark line.

told de Soto of gold he could find towards the east among a people he called the Yupaha.

Perico claimed to have traveled widely with traders, and that he had once lived with the Yupaha, whose leader, he said, was a woman, a chieftainess. Yupaha was apparently another name for the Indians of Cofitachequi, the second important chiefdom that arose in South Carolina at the same time as the Ocute in Georgia. Historians have determined that the two chiefdoms were enemies.

Much is known about de Soto's travels because several participants recorded the details, including Rodrigo Ranjel, secretary to the Spanish leader. Prehistory, the time when there were no written records, was coming to a close. With the arrival of the Spanish and their writing, history in the Southeast began to be recorded.

The route historians think de Soto followed has recently undergone revisions as a result of work by Charles Hudson, Chester DePratter, and Marvin Smith, among others. Their re-

search has also synthesized much of what we know about de Soto. Their assessment of de Soto's route, though not universally accepted, differs from earlier judgments that the *entrada* passed close to the Russell Reservoir; in their view, the area was bypassed.

Whatever their exact path, the Spaniards' incursion into Georgia and South Carolina had such impact that the effects reverberated for miles. From all accounts, de Soto was a brutal man. Unlike some of his countrymen who traded with the Indians for food and other needs, de Soto used force and intimidation to get what he wanted. He needlessly burned many villages and often humiliated the chiefs, enslaving them and forcing them to accompany him as a guarantee of safe passage. He demanded women for his soldiers, and bearers for supplies, and ordered these slaves bound in chains to prevent their escape. As a final reminder of his conquest, he planted Christian crosses atop the Indian's sacred ceremonial mounds.

Soon after de Soto entered south Georgia, he encountered a swollen river, probably the Flint, which had to be crossed. The effort took days. The men built a barge, which they pulled back and forth across the raging water by using a chain tethered on the banks of both sides. The chain was made up of many smaller chains, which were normally used to bind the Indians. Twice this makeshift device came undone, endangering many lives. Eventually, however, the entire party of soldiers and attendants reached the other side.

Traveling north, they reached central Georgia by the end of March, near where Macon is today. From there, they continued northeast, finding a mound center near present-day Milledgeville. The leader of this settlement was aligned with the powerful chief Ocute, the strongest authority for miles. Ocute lived north along the Oconee River between Milledgeville and Madison. De Soto sent word for this great chief to meet him, and Ocute complied. Then the two men and their followers traveled together along the Oconee River until they reached Ocute's headquarters. The remnants of those headquarters may exist at one of several archeological sites, possibly at a place called Shoulderbone, which has five mounds, one of them 40 feet tall. Some experts think that the descendants of those who once lived in the Russell Reservoir area were among Ocute's followers.

Supplied by Ocute with food and bearers,

de Soto this time left a cross in the chief's village plaza, not on a mound, when he departed.

The Spanish army was again travelling northward, still seeking the promised gold of Cofitachequi, when the Indian guide Perico suddenly fell to the ground, foaming at the mouth. The frightened Spanish held an exorcism to rid the boy of the evil spirit they thought possessed him. Perico recovered, but soon a greater calamity befell them all.

The boy said they would find the land of gold just four days away to the east. But others among the Indians warned that nothing but unoccupied land existed in that direction, and any who risked the journey would starve. De Soto chose to believe Perico. Patofa, an Ocute war chief, and his warriors joined the Spanish for the trip east. (Indians often had separate chiefs for war and peace.) Patofa and his band hoped to win revenge against their enemies, the Cofitachequi, and de Soto must have welcomed them, thinking they could help him find the elusive gold belonging to their foes.

But Patofa and his warriors were little help in finding either their enemies or gold. Four arduous days passed in a forbidding land the Spanish derided as "the desert of Ocute," with no sign of the Cofitachequi. Food quickly ran short, just as they had been warned it would. Things worsened on the fifth day when they reached the Savannah River, which they called

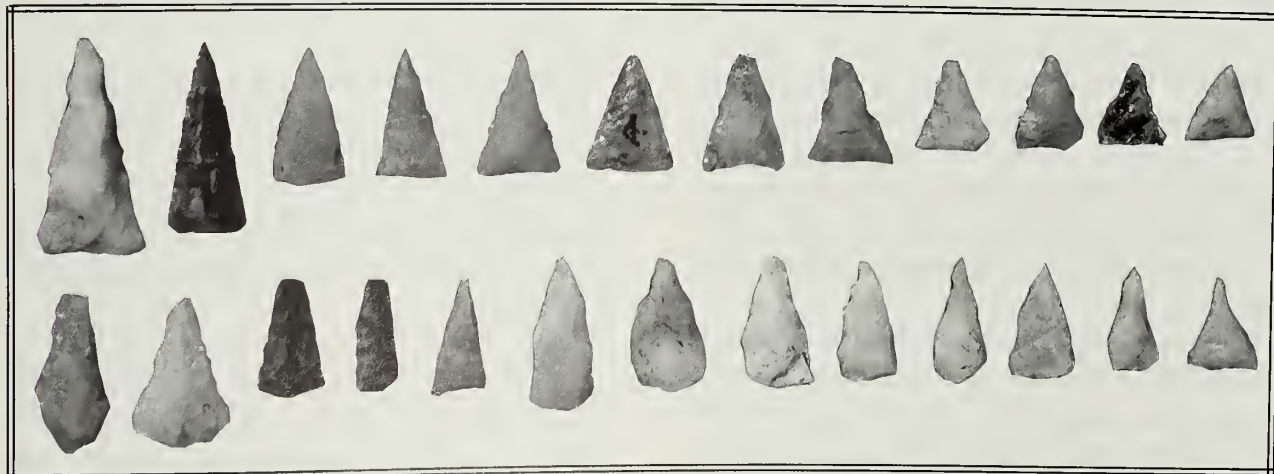


Figure 96: Mississippian arrowheads in the Savannah River region are typically small, sharp, and triangular.

"un grandísimo rio." If they were to continue their search for gold, they had to ford the river. The horsemen probably crossed south of the Russell area near Augusta, where the river divided and swept around an island. Stepping stones here and there eased the way, but the water was so deep in some places that it reached the horses' stirrups and saddlebags. Currents were also swift, and swept away and drowned some of the pigs the soldiers drove along beside them. Foot soldiers struggled their way across farther north after tying themselves together in a human chain 30 to 40 feet long.

By the time everyone reached South Carolina on the other side, their situation was desperate. They had to find food. De Soto commanded everyone to speed up to double time, until they were covering nearly 30 miles a day, compared to the usual 17. They met more rivers swollen by spring rains and had to stop and again expend precious energy to build barges for crossing.

By late April, nine days after leaving the last Ocute village, they reached the juncture of the Saluda and Broad Rivers where they converge into the Congaree River, near present-day Columbia, South Carolina. Unknowingly, they had reached the outskirts of the Cofitachequi territory; Perico was right after all, even if he had sorely miscalculated the distance. Unaware of how close they were to the chiefdom, the Spanish were hopelessly lost, and found only a few hunting or fishing shacks. De Soto by now realized that the Ocute war chief, Patofa, had no idea where to find his enemies. The conflicts between the two chiefdoms, unlike the battles familiar to Europeans, had apparently consisted mostly of skirmishes involving hunting bands in buffer zones between the two territories, not outright invasions.

Rain continued to raise rivers and creeks as the soldiers floundered for several more days. Finally, on April 25, a scout returned with word of finding a village called Aymay. The expedition soon reached the village after

struggling nearly 130 miles since leaving the last Ocute settlement. Aymay, where the Spanish found enough corn to sustain them for a time, was under the dominion of the Cofitachequi, who controlled great sweeps of land in South Carolina, perhaps virtually the entire eastern half, as well as parts of North Carolina. Their leader was a woman who inspired deep loyalty, even unto death. At least one of her followers at Aymay refused to tell de Soto the woman's location or any other information about her, even when de Soto tortured and burned the man to death.

The Ocute war chief, Patofa, and his band engaged in similar behaviors, raiding several villages, looting and desecrating temples, and killing and scalping everyone they could find. Then they left for home, parting company with the Spanish, their taste for revenge sated.

De Soto eventually found his way to the outskirts of the Cofitachequi power center near present-day Camden, South Carolina. He camped alongside a river, likely the Wateree, and sent emissaries across to secure canoes for his crossing, as well as translators. Soon, the Lady of Cofitachequi—the chieftainess or a relative, accounts vary—crossed over to welcome him. The spectacle was described in detail by de Soto's secretary Rangel:

"...and the chief Indians came with gifts and the woman chief, lady of that land whom Indians of rank bore on their shoulders with much respect, in a litter covered with delicate white linen. And she crossed in the canoes and spoke to the Governor (de Soto) quite gracefully and at her ease.

"She was a young girl of fine bearing; and she took off a string of pearls which she wore on her neck, and put it on the Governor as a necklace to show her favour and to gain his good will.

"And all the army crossed over in canoes and they received many presents of skins well tanned and blankets, all very good; and countless strips of venison and dry wafers, and an abundance of very good salt.

"All the Indians went clothed, down to their feet with very fine skins well dressed, and blankets of the country, and blankets of sable fur and others of the skin of wildcats which gave out a strong smell. The people are very clean and polite and naturally well conditioned."

After The Digging Ends

A zooarcheologist picked up a container the size of a shoe box and carried it to a table, where she removed the lid and delicately picked out an animal bone a little bigger than a thumbnail. Tiny black numbers were inked on the bone surface, identifying marks that help keep this particular specimen from being mistakenly filed with thousands of others resting on shelves. The zooarcheologist performs a crucial task determining which animals humans ate in the past and coexisted with, knowledge gained through detailed scientific analysis in a laboratory at the University of Georgia.

The work is frequently overlooked when laurels are distributed for archeological achievement. Yet, without the efforts of people like Elizabeth Reitz, chief zooarcheologist for the Beaverdam Creek Mound excavations, and Kay Wood, laboratory director for research at the site, strides in tracking the human past would be much fewer. Reitz, for example, has written many papers for national journals about findings during the Russell investigations.

Zooarcheologists do their work after specimens arrive from the field where archeologists have labeled bones and bone fragments so that their locations in excavations won't be forgotten or confused. This data becomes important in determining the years, and even the seasons, sites were occupied. Zooarcheologists use the same identifying numbers in their reports, another measure to ensure the complete accuracy that is the foundation of all good science.

Once they are sorted into classes, genus, and species, bones are compared with others in the lab collection that have already been thoroughly identified. Through such comparisons, an expert can sometimes tell if a bone came from a male or female, or whether it belonged to a juvenile, subadolescent, adolescent, or adult animal. Some bones of mammals fuse with maturity, so the extent of the fusion, or epiphysis, is a sign of the animal's age. Also, immature bone is often porous and spongy. Sex of a chicken can be determined because males have claws or spurs on the tarsometatarsus bone and females don't. But often a zooarcheologist is presented with far less recognizable bones or only small bone fragments. In those cases, many trips to the shelves are necessary for comparison bones before a positive identification can be made.

A sensitive electronic scale capable of measuring to within one-hundredth of a gram is used to gauge the quantity of bones from each species in the samples from archeological sites. This information is useful in learning how common one type of animal might have been.

The university's lab collection, while extensive, is being expanded to contain the broadest range of Southeastern species possible. Skeletons from recently deceased animals are enclosed for a time with live beetles, which consume any remaining flesh that might go undetected by the human eye. Among animal skeletons being acquired are those of wild pigs from the Southeastern coast because the bones of domestic hogs are all but unrecognizable from those of long ago. Chickens and cows have undergone similar transformations, apparently caused primarily by forced rapid growth from hormone additives.

When de Soto asked to see their fine metals, the Indians obligingly produced copper and large pieces of mica, but no gold or silver. The Spaniard refused to believe no gold existed among the Cofitachequi, and led his men to search the chiefdom's sacred town. Called Talimeco, this once thriving settlement of 500 houses was deserted, perhaps because of plague. The Indians told the Spanish that disease had swept through their people two years earlier, causing them to abandon several settlements. Not all experts agree, however,

that a recent plague had prompted the desertions, but think that the towns were abandoned much earlier.

De Soto and his soldiers climbed the temple mound where a large building stood beneath a high roof encrusted with strings of pearls and conch shells. They walked through an entrance guarded by six pairs of wooden, life-size human statues. Each statue pair held a different set of weapons, as if ready to attack intruders. Overhead, the ceiling was studded with more pearls and shells similar to those decorating

the outside.

More statues of men and women were found farther inside the temple, while along the walls, there were ornate chests holding the skeletal remains of former leaders. Other chests brimmed with freshwater pearls, furs, and animal skins. Adjoining rooms disclosed still more treasures—ceremonial weapons adorned with strings of pearls and strips of leather and copper. But no gold.

De Soto and his followers stole as much as they could carry, then abducted the Lady of Cofitachequi as insurance against attack before setting out northward away from her territory. They traveled for about two weeks, moving into the high mountains near Asheville, North Carolina. Then, on a cold May day, the Lady of Cofitachequi managed to escape, taking with her a box of the finest pearls de Soto and his men had stolen from the sacred temple.

De Soto pressed on in his fruitless search for gold for some months more, climbing through the mountains of North Carolina and into northwest Georgia, then crossing into Alabama. He continued kidnapping Indian leaders along the way, a tactic that usually prevented attack, but not always. Thousands of Indians mounted a surprise assault against the Spanish in south central Alabama as de Soto's caravan approached the gates of Mabila, a well-fortified Indian settlement. Mabila's stockade fence supported a series of towers 50 feet high. In every tower, there were seven and eight Indians who unleashed their arrows against de Soto's army.

The startled Spanish were successfully repelled outside the gates. Nevertheless, their weapons—thick, quilted armor and especially their horses—gave them advantages that even an almost suicidal Indian attack, which the fight eventually became, could not defeat. Arrowheads would not penetrate the Spaniard's protective coverings, so the Indians had

to hit the soldiers' heads and necks to kill them, and even the fleetest Indian attacker couldn't outrun a horse. Knowing this, the Indians tried to kill as many of the animals as they could, managing to destroy about 40.

The bloody fight raged for hours, with heavy casualties. Estimates range from 2,500 to 5,000 dead among the Indians, and 20 Spaniards. Almost all of de Soto's troops were injured, and 20 more died later from battle wounds. The Spanish also suffered other losses: All of the booty plundered from Cofitachequi and elsewhere was gone, as well as much of their food and other supplies, including clothing.

Still, De Soto persisted, trying to salvage some value from his costly venture as he pushed back north. But after Mabila, his army was subjected to frequent Indian attacks, many of them at night. De Soto finally lost his relentless drive and became despondent. He caught a fever, which led to his death in May 1542, on the western side of the Mississippi River.

For four years, de Soto's army had all but fruitlessly explored the interior regions of the Southeast. After they departed, the area remained largely unvisited by Europeans for the next 150 years. During this time, the powerful Mississippian chiefdom societies, which once had existed throughout the region, collapsed, primarily from disease and other stresses introduced by the early explorers. There were a few other European visitors not long after de Soto, primarily Spanish and French pioneers who tried with little success to colonize or establish Catholic missions along the coast of Georgia and South Carolina.

Within the Russell area, however, for decade after decade, the only human life present came when Indians entered to hunt. Nobody claimed the land for a long, long while—but the British were coming.

PART II

The Historic People



Figure 97: An unidentified family, with a pet dog and two kittens, posed in the Russell Reservoir study area around 1910. Lives of many such families were examined by historians and other experts.



Figure 98: Charleston, South Carolina, was the first English settlement in the state. Slave trading of Indians and Blacks thrived soon after colonists arrived. Many historic homes remain today.

Chapter 11: Land of Promise

1600 to 1776

The first permanent British settlement in South Carolina began with the arrival in 1670 at Albermarle Point of 150 people who quickly established a waterfront community they called Charles Town, later renamed Charleston. Funded by the Proprietors, investors who, in effect, owned the settlement because their money was at stake, Charles Town soon grew into the seat of power for the entire region.

This early English beachhead bore no resemblance to the graceful collection of stately homes and promenades that make Charleston famous today. The first enterprising families found themselves in a wilderness nearly surrounded by Indians, as foreign to them as they were to the Indians. Yet, for the most part, relations were at first cordial as trading between them soon became commonplace.

Most of the early colonists were hard-working farmers, but many soon learned that bartering with Indians was the path to faster fortune. British and French traders, generally a rough and tumble lot, discovered the value of furs and animal skins, which the Indians could abundantly produce. The traders also valued another commodity—the Indians themselves as slaves. Traditionally barterers, the Indians adapted quickly to exchanges with the White men. One of the prizes the White traders had to offer in return were guns, a weapon that would change the Indians' lives forever.

Many of the Indians stopped hunting deer for the animals' many uses as food, bone tools, and clothing, and began to slaughter them only for their hides, leaving the flesh and bones to rot in the forest. In 1707 alone, 121,355 deer skins were exported from South Carolina, the result of an enormous and unprecedented slaughter that began in the late 1600's and lasted about 100 years, according

to anthropologist Charles Hudson.

For animal skins and furs, the Indians received the guns that gave them more equal footing with Whites, as well as other objects which they greatly desired. They especially wanted the radiant glass beads so unlike their own shell jewelry. Metal hatchets that made their stone tools seem cumbersome and inept were also popular, along with English cloth and buttons, which led to another alteration in the Indians' lives: They changed their way of dress to match what they saw Whites wear.

Quickly, trade with the Indians became a thriving business in the new colony, and continued to be the dominant enterprise during most of the 1700's, producing the first fortunes in the New World. As South Carolina slowly expanded and more settlers moved inland, the slave market became especially lucrative. White traders enlisted the help of Indians in capturing slaves by capitalizing on long-standing disputes among different groups. Now, on raids of their enemies, the Indians took hostages in numbers far beyond any they had taken before, captives whom they turned over to the traders for guns, bullets, powder, and other items. Indians from South Carolina wanted the weaponry so much that they traveled as far as Mississippi and Florida to catch slaves to exchange for guns.

Not everyone approved of the role the immigrants were playing in this flesh trade, including the Proprietors, who sought to minimize the practice with an edict in 1677 ordering that only the colonial government could engage in Indian trade. Some colonists, particularly those closest to the far reaches of the frontier, where they had a clear view of the havoc slavery was creating among the Indians, also opposed the slave trade. But other settlers resented any interference, and

persisted despite the Proprietors' order.

Indians by no means were the only people to suffer bondage at the hands of Whites. The census of South Carolina for 1708 reported that among the 9,500 people officially counted, 3,000 were Black slaves and 1,400 were Indian captives, not far from the equivalent of one slave for every White. Some Indians also owned slaves, which they kept for themselves and did not trade.

Not surprisingly, the wide-scale barter in human life significantly intensified the dangers Indians faced, so much so that in 1693 the Cherokee, who had until then largely avoided trading with Charleston, felt compelled to send a delegation offering friendship, coupled with pleas for protection from other Indians hunting slaves. The Cherokee also now wanted to get their own share of the English guns.

Many Indians felt they had to get the weapons to protect themselves from marauding enemies hunting slaves. But to get the guns, they, too, were often required to pay in slaves. As time passed, however, more Indians became uneasy about the calamities rampant enslaving of one another was bringing; also, many were disgruntled over the ill treatment they received from White traders. When enough of them were aroused, they organized a bloody revolt.

None of the strong, centralized Indian governments from the Mississippian era remained. Instead, there were many independent chiefs whose rule was restricted to a single village or two and nearby hamlets. However, in the face of dangers introduced by the arrival of Whites, disparate groups began forming alliances. In South Carolina and Georgia, coastal Indians called the Yamasee banded together with the Creeks from south and central Georgia to wage war. At times, they indiscriminately attacked any Whites, regardless of whether their victims had participated in the slave trade or in any other way harmed an Indian. Having white skin was reason enough to incur Indian wrath.

From 1715 to 1717, the Yamasee and their

allies battled the colonists, attacking settlements along the South Carolina coast. Elsewhere in the Southeast, Indians murdered White traders and stole their supplies. The English responded by cutting off trade: No more guns would be swapped that might be used to kill the merchants. Weapons were not withheld from all Indians, however. Seeking allies for themselves, colonists approached the Cherokee living in the mountains to the north with an offer of guns and low-priced goods in return for help fighting the Yamasee and Creeks.

The Cherokee didn't easily decide to join the Whites against other Indians. Even before their negotiations began with the colonists, some Cherokee may have killed colonists during the early stages of the Yamasee War; reports vary. The issue was forced, though, when Cherokee, favoring a colonial alliance, reportedly murdered visiting Creek ambassadors, violating the unwritten Indian law that such emissaries were guaranteed safe passage. The killings required Creek retaliation, and fueled an enmity between the two groups that burned for years to come.

By joining the colonists, the Cherokee helped break the back of the Indian rebellion, and the Creeks and their allies were subdued. But in defeat, the rebels achieved a victory of sorts because the war contributed to a steep decline in the Indian slave trade. Whites decided to concentrate on the safer pursuit of skins and furs and looked elsewhere for slaves. Peddling of Blacks steadily increased, in part, because Black slaves were worth twice as much as Indians. The Indians were too inclined to revolt and escape into the wilderness they knew so well. To minimize these risks, Indian slaves were often sent far from their homes to New England or the West Indies.

During this early colonial period, the Russell Reservoir area was still unoccupied, although Cherokee lived not far away to the north, and groups allied with their Creek enemies lived nearby to the south. White trad-



Figure 99: Culture was important in early Charleston, site of one of the country's first theaters. Performances are still given in the Dock Street Theater, a reconstruction of an 1809 building.



Figure 100: Indians continued to farm after Whites arrived. John Wyth drew a Southern village on a 1585 expedition with Sir Richard Grenville. Theodore De Bry later made an engraving of the sketch.

ers who passed through the vacant land were often illiterate, so they left no written accounts of what they saw. But other Europeans did record their observations, including the British colonel George Chicken, who traveled along the Savannah River in the 1720's en route to meet the Cherokee.

The colonel's aim was to persuade the Indians not to trade with or support the French, who were trying to expand, at British expense, their own toehold in the New World eastward from their settlements in Mississippi and Louisiana. Furthermore, Chicken intended to discourage reconciliation between the Cher-

okee and Creeks, no doubt because a truce among the Indians could make them formidable adversaries against the colonists. The French also envisioned such a scenario, and tried to bring it to pass by rousing Indian sentiments against the British. If they succeeded, they might win all Indian trade for themselves.

Writings about the reservoir area and surrounding land, including Chicken's account, placed the Cherokee north along the headwaters of the Savannah River in the foothills of the Blue Ridge Mountains. The study area remained mostly empty, possibly a

residual effect of whatever prompted the disappearance of Mississippian people.

The amount of unoccupied land had diminished by colonial times from what had existed in the Mississippian period, but there were still empty miles that now formed a buffer between the Cherokee and Creeks. This stretch was entered cautiously by all, including hunting parties from both tribes, and warriors intent on raiding their foes.

Richard Taylor and Marion Smith of the University of South Carolina, who conducted the major archeological survey of the Russell area, suggested that disease may have been a factor in the prolonged absence of population. Fully half the Cherokees were killed by smallpox in 1738, for example. The empty buffer would have helped limit the spread of such infectious illnesses from one group to another, as well as help limit hostile confrontations.

As their appetite for European goods and need for the colonists' protection grew, the Cherokee began to relinquish their land. In 1747, they signed over to the British property along the upper Savannah River in what is now southern Abbeville County near Long Canes Creek in South Carolina. This tract was the first section of the reservoir territory to become part of the British colony.

Hostilities among the Indians mounted, often fanned by self-serving Europeans. The Cherokee were embattled with many enemies besides the Creeks, some of them based far away, such as the Siouan of Virginia, the Tuscarora and Catawba of South Carolina, the Chickasaw and Shawano to the west, and the Iroquois to the north. But fighting the Creeks was especially destructive for the Cherokee, who abandoned many of their towns in South Carolina because of the battles between them. They fled to the north and west into the safety of the Blue Ridge Mountains.

The Cherokee wanted the British to establish forts within Cherokee territory to protect them, as well as to promote trade, and by 1753 secured such a promise. When the British began building Fort Prince George, many

Cherokee began returning to South Carolina. The fort was built adjacent to the Keowee River, a source for the Savannah River. The spot was ideally close to the well-worn Cherokee Path, also called the Keowee Path, which extended south to Charleston and north to the mountains. Across the river from the fort stood Keowee, an important Cherokee village.

The Cherokee were widely scattered across the foot hills and mountains of the Southeast. They never operated as a monolithic, totally united force. Consequently, anthropologists have developed labels to distinguish distinct groups among them. Those who lived near Fort Prince George in northwestern South Carolina and northeastern Georgia are identified as the Lower Cherokee, and Keowee was their most prominent village. They differed slightly culturally and in their dialect from those Indians living in the North Carolina mountains who are labeled Middle Cherokee. Those who lived on the other side of the mountains in east Tennessee are referred to as the Overhill Cherokee.

The three clusters sometimes cooperated with one another, and sometimes did not, but, regardless, the many chiefdoms among them prized their autonomy.

Michael Harmon of the University of South Carolina has documented just how the Lower Cherokee became dependent on British goods, while they still retained aspects of their own culture. Their artifacts, discovered near the headwaters of the Savannah River, revealed that the Indians traded for many goods, including ceramic jugs, pewter spoons, tin pots, frying pans, and brass kettles. Even though they used and valued these European utensils and cooking gear, they did not abandon traditional communal eating habits, maintaining them throughout the 1700's.

When the brass kettles they obtained through trade wore out, they recycled the metal to make jewelry and arrowheads; and when the English ceramics broke, Indians drilled holes in the sherds and turned them into pendants for necklaces and bracelets. The



Figure 101: The Cherokee sometimes used European glass to make tools for practical and mystical purposes. Some used glass stems in place of crystals for seeing the future.

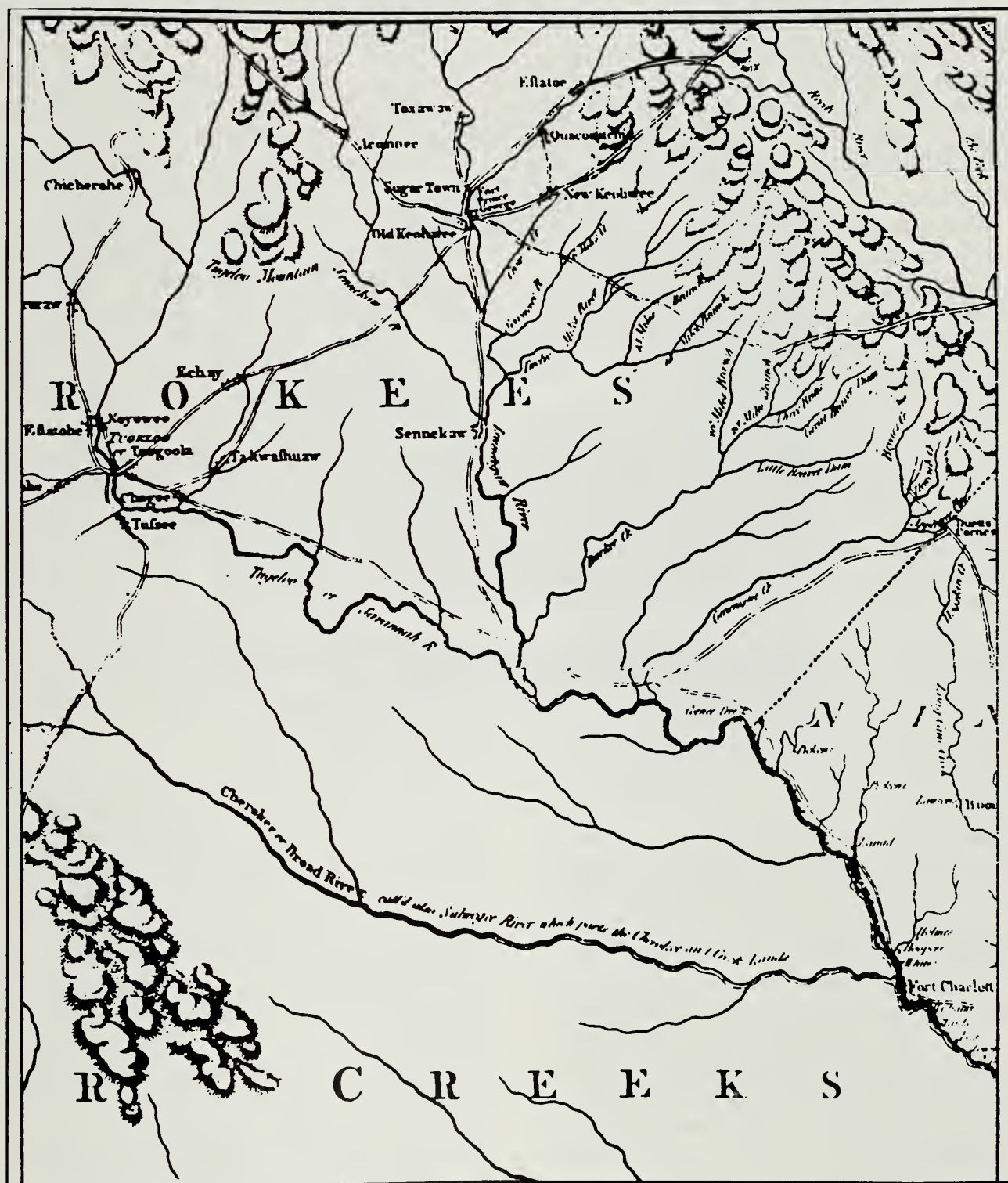
Cherokee also adapted European glass to their own use, transforming it into tools such as scrapers, which they had made before from sharpened stone. Glass stems were reserved for important mystical functions—the Indians carried them as good luck charms and for divining the future. Quartz crystals were used similarly before the Europeans arrived, perhaps because the dragon-like monster of Cherokee myth, the Uktena, supposedly had a sparkling, diamond-like crystal in its forehead. Anyone resourceful enough to capture that crystal, called the *Ulunsuti*, would win special powers. The abundance of glass brought to North America by the colonists must have contributed to the awe the Europeans originally inspired among the Indians.

European influence extended beyond what could be found inside the Indians' homes and affected the structures themselves. By the mid-1700's, the custom of building separate houses for warm and cool weather began to decline, and various Cherokees erected only one rectangular dwelling for year-round use. In some

places, though, dual housing persisted until the end of the century. The Cherokee also ceased building walls of upright posts arranged side by side, and instead, by the 1780's, copied the European method of placing logs horizontally. They also adopted fireplaces and wooden floors, and stopped using woven mats to cover floors.

Cherokee furnishings followed tradition awhile longer, with cots for beds and seats, and baskets for storing clothing. However, those who could afford to, did add one more European feature—a big, wooden trunk for storage. Indians may have also salvaged traders' shipping crates for the same purpose. They also liked the cloth Europeans bartered, and traded for scissors, needles, and metal awls to help transform the material into clothes. Cherokee men took to donning European-style shirts, but continued wearing loin cloths and moccasins, or went barefoot. Indians did not customarily wear trousers until the 1800's.

Less is known about the clothing of Chero-



Map 14: Fort Prince George, at the top of a 1773 map, was surrounded by Indian land they eventually lost through treaties, thefts, and war. The Savannah River flows through the map's center.

kee women, although evidence indicates they were dressing like Europeans by the mid-1700's. Fancy traditional styles were still worn, however, by both sexes for ceremonies and dances, and both men and women also began wrapping themselves with blankets for warmth. To decorate their new fashions, the Cherokee traded for belts, buttons, brooches, bells, and even mirrors, which they sewed on the clothing.

Glass beads in white and black were worn as jewelry and used to adorn elaborate smoking pipes. The beads were also potent symbols to the Indians—white ones signified peace, black beads meant war. Knowing this, colonial officials sometimes sent white beads to the Indians to display good intentions.

The Indians eagerly sought European-made earbobs, but they also continued to make their own, using brass wire and other metals obtained in trade. Sometimes they twisted wires into bracelets or used wire and glass beads to make ornaments for hanging from their noses.

Their metal-working skill included converting gun barrels into drills, which they used in crafting jewelry. The Cherokee also learned to repair rifles, but many continued to use bows and arrows throughout the 1700's for several reasons. Arrows were silent, important to the sneak attacks they preferred, and the colonists restricted the number of guns traded to the Cherokee during war. Even so, there were always White traders willing to defy officials and provide weapons anytime for the right price, and to sell rum, for which some Indians had also acquired an almost irresistible taste.

Swapping with colonists for straight razors ended another Cherokee practice, hair plucking. Before, many of the men had removed all but a tuft of hair from their heads by plucking, while women, who wore their hair long, had plucked all other body hair, excluding their eyebrows.

The Indians didn't obtain everything through trade. They took some of the Whites' goods as spoils in attacks on the colonists, and acquired other items in peacetime thefts. Some

Whites, of course, also stole goods from the Indians.

By the 1740's, the Cherokee owned many horses. They usually rode bareback because saddles and bridles were exorbitantly expensive, luxuries obtainable only by the chiefs and other elite. Generally, there tended to be little difference among most Indians in their personal wealth, but the leaders sometimes could afford more expensive goods such as better guns, silver jewelry, and wooden trunks.

While the clash of cultures altered Indian life, it also changed the Europeans. The colonists learned new farming, hunting, and fighting techniques, methods the Indians had demonstrated from long experience were best suited to the Eastern Woodlands. Some Europeans also copied Indian clothing and cooking, and picked up a hard-to-break habit from the Indians when they began to smoke tobacco.

The Cherokee and British maintained good relations during the early 1750's. The construction and garrisoning of Fort Prince George was welcomed by both sides, with the British offering a good-will gesture by acceding to a Cherokee demand that their burial mounds nearby be preserved. The British agreed to erect a fence to protect the graveyard.

Workers, colonial and Indian, cooperatively built the fort, directed by Governor James Glen. The governor helped choose the site for the fort near the Cherokee town Keowee and worked diligently to smooth relations between the natives and the colonial settlers. The cordiality extended to the commander of Fort Prince George, who, at least once, gave the Keowee residents a barrel of rice and a barrel of bread.

Within a few years, however, relations soured. The Cherokee were displeased with the growing number of Europeans violating treaties by establishing farms on Cherokee land. This pattern was to escalate and continue, despite repeated promises that the Whites would go no farther than an agreed boundary. Too, White traders persisted as a sore point.

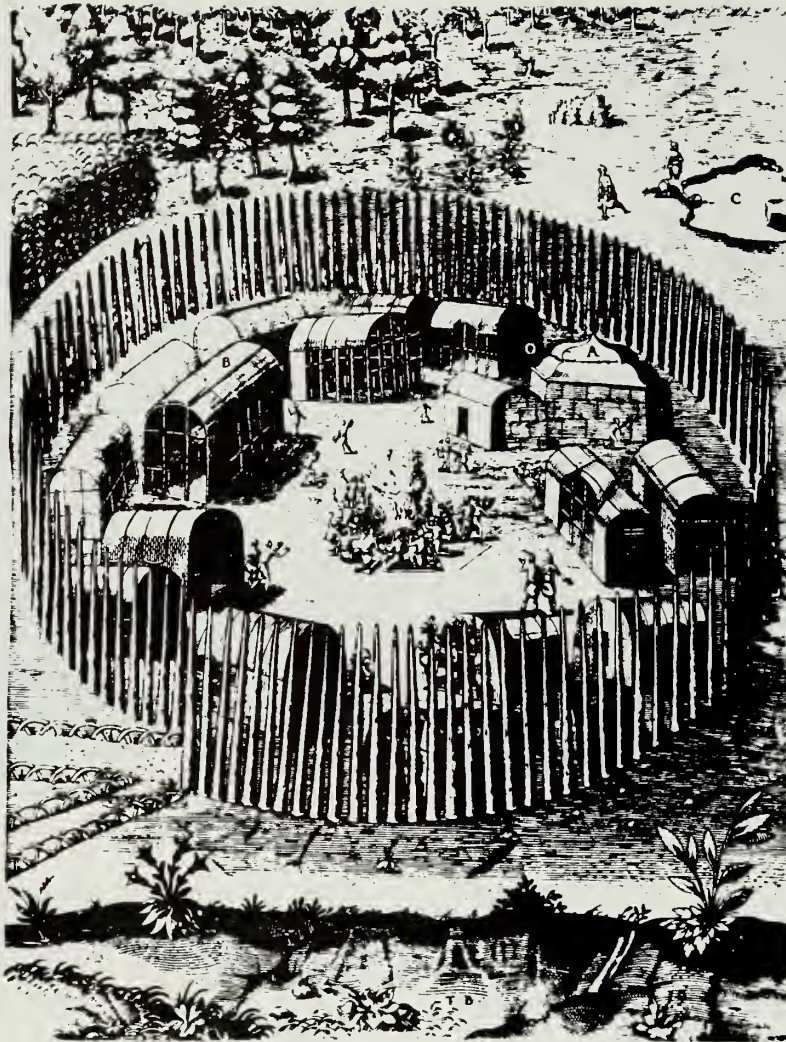


Figure 102: Theodore De Bry's engraving of an Indian town captures housing styles that eventually disappeared because of European influence.

The Indians considered many of them liars and cheats, a view shared by many Whites of the era, although there were a few traders who were well respected by both groups. If the Cherokee grew to distrust Whites, the feeling was reciprocated by many colonists who viewed the Indians as savages. British officials were also losing some of their good will towards the Cherokee because of reports that the Indians were secretly dealing with French traders.

These smoldering hostilities eventually erupted into bloodshed in 1756 in a dispute over horses. Details are sketchy, but apparently the trouble started as a large group of Lower Cherokee men returned from helping

Virginia colonists fight the French-backed Shawano Indians. According to one report, the Cherokee came upon some grazing, unattended horses, which they caught, and prepared to lead home. Suddenly, colonists appeared, claiming the animals as theirs and accusing the Indians of stealing. Shots were fired and several Whites were killed.

Learning of the incident, British authorities demanded that Cherokee leaders turn over all involved, which the Indians refused to do, despite British threats of retaliation. Matters worsened some time later when another incident occurred on a day when many of the Cherokee men had left the village to go hunting. In their absence, three young officers

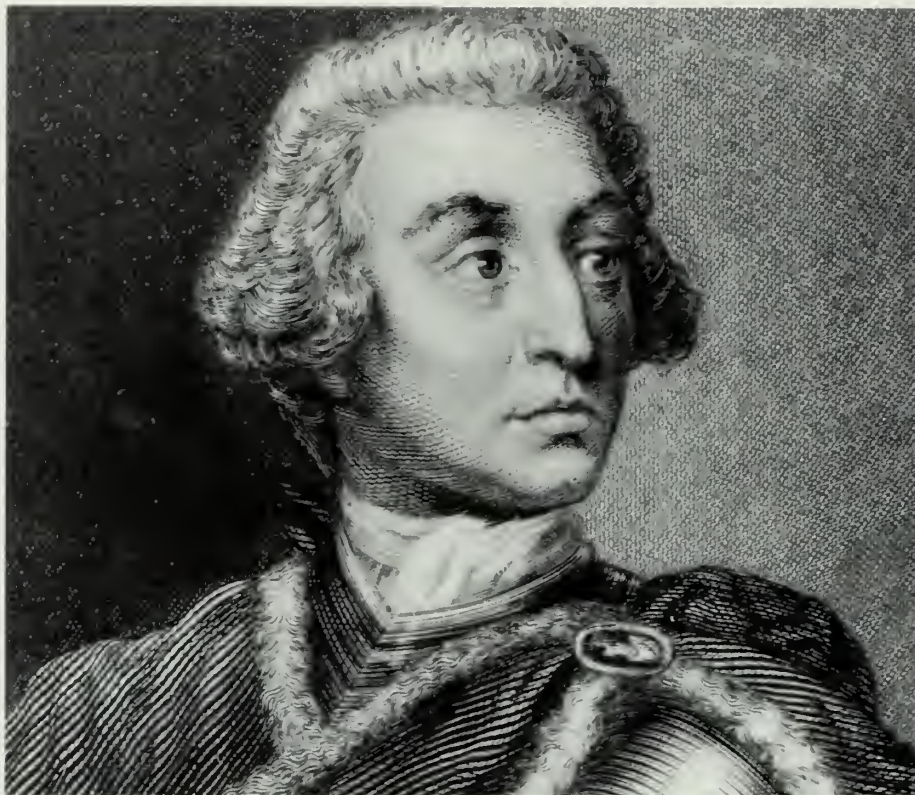


Figure 103: James Edward Oglethorpe of Great Britain, Georgia's founder, tried unsuccessfully to prevent slavery in the colony.

from Fort Prince George reportedly raped three Cherokee women in their homes. Further hostile episodes followed, with blood spilled on both sides, leading up to the British formally declaring war on the Cherokee in 1759.

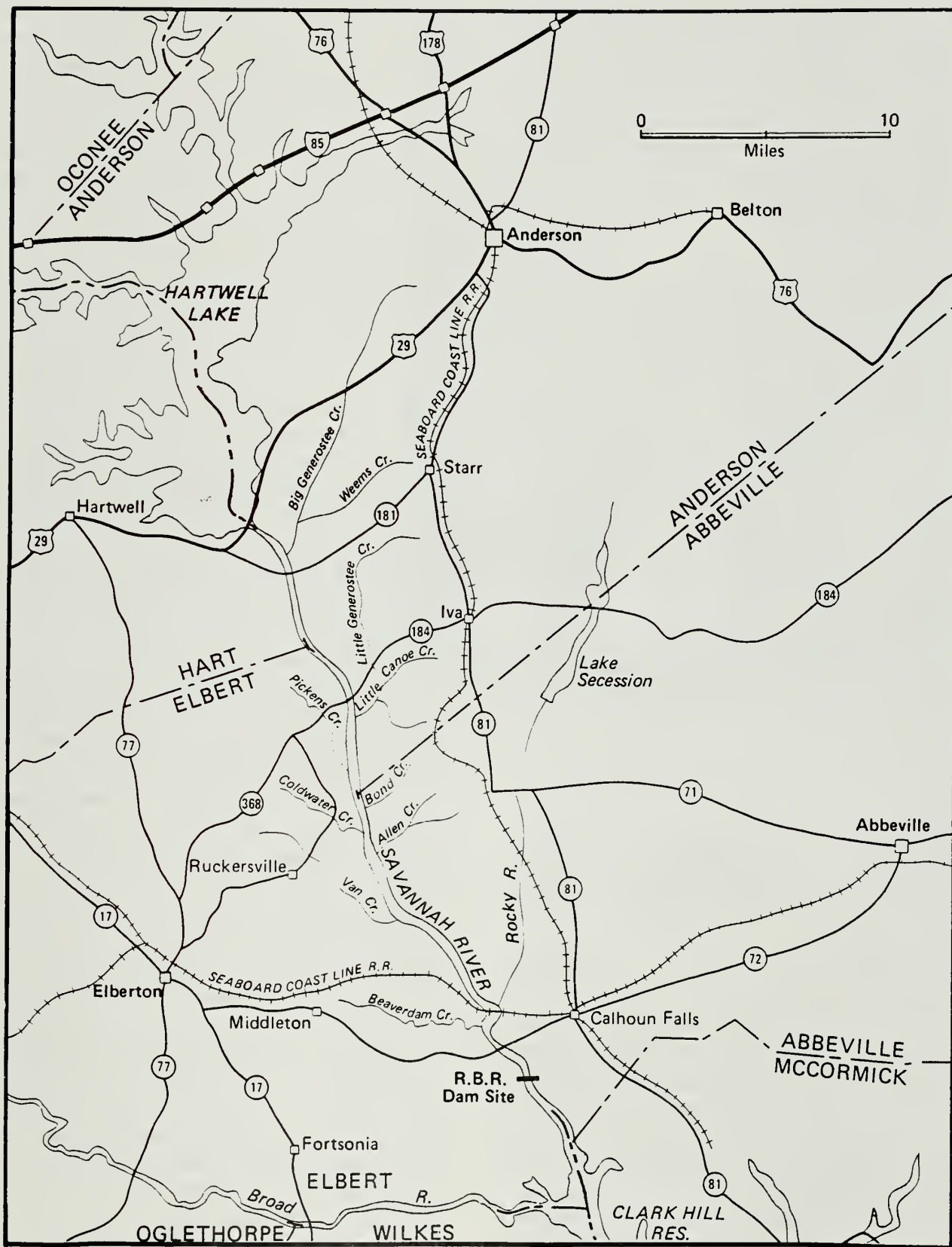
Yet, some Indians still desired peace. An Indian delegation of 31, including important Cherokee leaders, traveled to Charleston to confer with Governor William Henry Lyttleton, who had replaced Glen in 1756. But the governor refused to see them, and instead ordered them imprisoned. All 31 Indians were eventually jailed at Fort Prince George in a room designed to hold only six people. Their arrest on a mission of peace was the final insult, prompting outraged Cherokee to surround the fort, placing it under siege. In February 1760, the Indians somehow tricked the fort commander into stepping outside the stockade where they shot him dead. The soldiers inside retaliated by killing all their Cherokee captives.

Soon an army of some 1,000 British sol-

diers arrived and destroyed all Lower Cherokee villages, burning the houses and crops and sending survivors fleeing to the high mountains. They found shelter there among the Middle Cherokee.

The British army soon pursued them, however, only to be repelled at an Indian village called Echocoe. The unsuccessful British were forced to retreat back to Fort Prince George. But another British army soon followed, and this time the soldiers triumphed in their mountain assault, destroying all Middle Cherokee villages. When peace was finally negotiated, the price the Indians paid was the surrender of more land, including additional parts of the Russell Reservoir area. Again, the colonists gave their word that in the future no more Indian property would be seized.

With their victory, the British had pushed the colony's borders north to include all of Abbeville County, South Carolina. The northern section of the reservoir, in what is now Anderson County, South Carolina, still be-



Map 15: A contemporary map shows the Russell Reservoir study area, including surrounding counties.

longed to the Cherokee. Across the Savannah River in Georgia, the reservoir land remained in Indian hands because the colony of Georgia was slower to be settled. James Edward Oglethorpe and the English colonists he brought to Yamacraw Bluff to establish the city of Savannah didn't arrive until 1733, 63 years after the first Charles Town settlers.

Architects for the growth of South Carolina sought to strengthen their hold on former Indian territory by enticing homesteaders inland with free land grants. Many resisted the offer. There were only 23 White families counted in all the backcountry in 1761, and only three of those lived within the Russell Reservoir land.

By 1763, there were reports in a newspaper that about 1,000 families had moved into the Long Canes Creek area, land the Cherokee forfeited in 1747. But J. W. Joseph, after examining information developed during the Russell investigations, concluded that the newspaper account exaggerated and that far fewer colonists had settled there.

Sparse White settlement was probably caused by fear of Indians, including the Creeks, who still claimed land just across the Savannah River in what would become Georgia. Events proved such fears justified. Cherokee or Creeks attacked in the early 1760's in a major assault on White settlers near Long Canes Creek, killing at least 20 people and sending other Whites fleeing to the coast. Among the dead were members of the Calhoun family.

Originally from Donegal, Ireland, the Calhouns first settled in western Virginia. Like a number of pioneers who moved once, twice, even three times or more looking for an ideal homesite, they left Virginia and in 1756 chose property in the Long Canes Creek area. Calhoun survivors of the Indian assault eventually returned to rebuild on another site in the area. They established a family presence that played a major role in the history of the Russell Reservoir area, the state of South Carolina, and the entire nation.

Indian and White relations in Georgia, meanwhile, were relatively placid and continued that way for some time, possibly because of the colony's slow growth and the Georgians' concerted good-will efforts to compete with the South Carolinians for Indian trade. Some Whites did move into the Indians' Georgia territory as early as the 1750's, but apparently provoked little hostility. The Creeks possibly became too preoccupied with their war against the Choctaws to the west in the 1760's and 1770's to give the White intruders much thought.

Why did colonists ignore treaty boundaries and live on Indian land? There were probably many reasons. The earliest arrivals in any area snared the richest farmland for themselves, and the settlers had covered many hard miles to find and obtain rich soil for their crops. Too, the settlers were a scrappy lot, often driven by a desire to live far apart from others and free of any government rules. Some paid dearly for their independence and isolation because when the Indians attacked, there was often no help around for miles.

The Georgia Indians soon lost more land through a series of treaties. Government officials forgave Indian debts with traders in exchange for their property, steadily pushing colonial borders north from the Augusta and Savannah region. In 1773 at the Indian Congress in Augusta, Georgia, the Creeks and Cherokee made one of their biggest land concessions. They signed away over 1.5 million acres—the so-called "New Purchase"—to the colony of Georgia. The land handed over to the colony included parts of what is now the Russell Reservoir region.

Acquiring Indian land through their indebtedness from trading with Whites was a deliberate plan first envisioned by Thomas Jefferson, who proposed placing trading posts close to the Indians expressly for that purpose. The scheme was disastrously effective against Indians, few of whom could resist the merchandise Whites had to offer, and who soon became dependent on the goods.

William Bartram, a noted writer and botanist from Philadelphia, attended the Indian Congress in Augusta, and described the proceedings:

"...the negotiations continued undetermined many days; the merchants of Georgia demanding at least two millions of acres of land from the Indians, as a discharge of their debts, due, and of long standing.

"The Creeks, on the other hand, being a powerful and proud spirited people, their young warriors were unwilling to submit to so large a demand."

The warriors appeared impatient to wage war, according to Bartram, who wrote that the Indians were unwilling "to listen to reason and amicable terms."

"However, at length, the cool and deliberate counsels of the ancient venerable chiefs, enforced by liberal presents of suitable goods, were too powerful inducements for them any longer to resist, and finally prevailed."

Bartram, later accompanying surveyors marking Georgia's new borders resulting from the treaty, wrote his impressions as he went. Near the reservoir area, he found much to delight him:

"...the land rises very sensibly, and the country being mountainous, our progress became daily more difficult and slow; yet the varied scenes of pyramidal hills, high forest, rich vales, serpentine rivers, and cataracts [waterfalls], fully compensated for our difficulties and delays."

An astute naturalist, Bartram observed that the country was already bereft of some animal species because of humans:

"The buffalo once so very numerous, is not at this day to be seen in this part of the country; there are but few elks, and those only in the Appalachian mountains."

But the continued presence of some creatures drew less favorable comment: "The



Figure 104: William Bartram occasionally traveled alone among the Indians, sometimes drawing them and writing his impressions, which have become valued records of a vanished culture.

dreaded and formidable rattlesnake is yet too common, and a variety of other serpents abound. The alligator, a species of crocodile, abounds in the rivers and swamps, near the coast, but is not seen above Augusta. Bears, tigers, wolves, and wild cats are numerous enough...."

Bartram, also a skilled illustrator, drew sketches of the flora and fauna he saw; some of these efforts accompanied his published writing, and several of his drawings are now displayed in the Exposition Center in Savannah. A man of considerable religious faith, Bartram sometimes explored all alone in the wilderness. He covered countless miles seeing Georgia, South Carolina, Florida, and Alabama, and was readily accepted into many



Figure 105: Cannons were part of Charleston's stormy beginnings and are still poised today on the East Battery as a reminder of yesterday's battles.

Indian villages, where he characteristically recorded what he observed in great detail, providing succeeding generations with some of the most thorough records of Indian lifestyles. Unlike many others who preceded him, Bartram described the Indians realistically, rather than in stereotypes, while the Indians had their own view of this curious white man. They called him "Puc Puggy", The Flower Hunter.

Many readers of his time were influenced by Bartram's words; some were even encouraged to move into places he described. While occasionally his writing painted a picture of an almost frightening wilderness, at other times he described a land rich in potential for the motivated. He predicted the region would be excellent for growing corn, other grains, indigo, grapes, and sundry fruits, as well as for raising silkworms, and he foresaw that the many "delightful glittering streams of running water" would someday be ideal for powering mills to grind the grain. Although he was sometimes wrong in his visions for the future, Bartram captured the excitement many came to share about the country, and he left for the

rest of us a chronicle of what it was once like.

Pioneers migrated to the reservoir territory by different routes. Some traveled by ship to Charleston or Savannah, then moved inland from there. Perhaps the biggest cluster of settlers arrived in 1764, when 200 French Protestants, called Huguenots, left Charleston to establish the inland town they named Abbeville, in honor of a town in their homeland.

But it was the Scots, English, and Scotch-Irish who first predominated, with a few Germans and Dutch in the mix. Many came from Northern colonies by way of the Great Philadelphia Wagon Road, a slow journey that took them across the Potomac River and into the Shenandoah Valley of Virginia. From there, they continued south through Appalachian mountain passes, and into the Piedmont regions of South Carolina, heading for the village of Camden.

At Camden, just north of Columbia, the trail split in two. One route headed southwest to Augusta, the other towards the west and an Indian trading post called Ninety Six. The post took its name from its distance to the village

of Keowee (and later Fort Prince George) along the Cherokee Path. Ninety Six was the jumping off point for those seeking to venture a bit farther into the frontier towards what was to become the Russell Reservoir. The post also proved significant in South Carolina's future as the base for the Ninety Six Militia, which fought the British army in many Revolutionary War battles, including the battle for control of the city of Savannah.

Trails that the Indians had blazed when they were the only people in the land were often followed by White traders, whose horses helped beat down the brush and make the routes more distinct. Later, the trails were widened to accommodate wagons. Because the paths often crossed rivers and streams at the easiest spots and followed valleys, the railroads later were often built alongside them. Ultimately, what began as narrow footpaths for the Indians became the arteries and veins of a major transportation network.

While there were certainly rugged loners among the initial colonists, many others were part of extended families of several generations that traveled and settled together. The kinship must have helped them endure the rigors and dangers of a primitive life when miles often separated them from other settlers. Vigilante rule was frequently the only law in the frontier where, besides potentially hostile Indians, the colonists sometimes had renegade Whites to fear as well.

The outbreak of the Revolutionary War in 1775 reverberated through the South and heightened the dangers facing homesteaders. Everyone was now on guard. The Lower Cherokee had moved back to their traditional lands in the foothills of what would one day be South Carolina and Georgia and rebuilt some of their villages, but they were apparently weaker than before. A government report of the time explained that trading with them

was no longer profitable. The report, however, advised continuing the trade because the Cherokee could still serve as a defensive screen between the colonists and the French and hostile western tribes.

But the Whites misjudged the strength of the Cherokee who were angrily losing even more land to the continuing flow of settlers debarking from the Great Philadelphia Wagon Road. The Indians saw the war between the British and the colonists as a chance to avenge themselves on the colonists, an attitude cheered by the British, who provided them with guns and supplies.

The British fleet's attack on Charleston in June 1776 was the signal that launched the Cherokee assault on settlements in Georgia, the Carolinas, and Virginia. The Indians chose their targets randomly, indiscriminately killing men, women, and children, those who were a party to the American Revolution, and those



Figure 106: Surveying and testing a site are important steps to every excavation, whether archeologists are searching for signs of historic or prehistoric human occupations.



Figure 107: Charleston's Old Exchange Building served as a British jail for political and military prisoners during the American Revolution.

who were loyal to the British. A few Creeks joined the battle against Whites, but most other Southeastern Indians stayed on the sidelines.

Reaction from the affected colonies was swift and deadly. All the colonies sent citizen armies to hunt down and kill every Cherokee they could find, including women and children. Burning villages and crops as a matter of course, the colonists, by the time they finished, left not a single Lower Cherokee town standing, and none would ever be rebuilt. Defeated, the Cherokee signed a peace treaty in 1777, with the now familiar proviso

agreeing to concede forever still more of their territory. Now, all of the reservoir land was in the hands of the colonists. Many Cherokee turned their backs on the land of their ancestors and moved to Alabama, Tennessee, and northwest Georgia. In a relatively short time, they would be expelled again as more Whites poured in and took their land.

But for awhile, the Cherokee were able to exist under their own rule. They eventually created their own constitutional government, which they patterned after that of the United States. They established New Echota in north Georgia as their capital. Sequoyah, their



Figure 108: Crews systematically examine and collect artifacts from the ground surface before excavations begin.

leader, invented a syllabary of the Cherokee language, which helped many learn to read and write. Sequoyah also started a newspaper, *The Cherokee Phoenix*, which he published in Cherokee and English to convey important information and strengthen common ties. Many federal and state officials, however, including President Andrew Jackson, didn't accept the sovereignty of any Indian nation, and continued the pattern of seizing Indian land through whatever worked, a scheme repeated throughout the country.

There was little the Indians could do to stop the loss because they were outnumbered and outgunned, and Whites justified their actions with laws. In Georgia, for instance, state representatives drafted legislation in 1829 dissolving all Cherokee laws, leaving the Indi-

ans with no legal rights.

Steadily, more Cherokee left, heading west to Oklahoma, Texas, and Arkansas. But too many still remained on land Whites wanted, so mass exoduses were ordered by federal officials.

The worst such journey began in June, 1838, and involved some 18,000 Cherokee. Nearly 4,000 of them died before arriving at the end of what has become known as "The Trail of Tears." A few Indians eluded the round-up by hiding, and a group in the western North Carolina mountains managed to get permission to stay. But most Indians were banished from the Southeast, effectively ending the hold of a once proud people on millions of acres so that a new nation could advance.



Figure 109: Nancy Hart, called "Warwoman" by the Indians, was a pioneer with a strong taste for freedom. This old painting portrays the Georgia frontierwoman subduing British Loyalists.

Chapter 12: Liberty or Death

1776 to 1782

The decrees and demands issued by the British Crown that stirred a citizen revolt in Northern colonies went largely unnoticed at first by the scattered population in the backcountry of Georgia and South Carolina. The Sugar, Stamp, Townshend, and Tea Acts had little meaning for pioneers struggling in the Southern wilds. Not that some didn't have their own resentments of higher authorities. In South Carolina particularly, many frontier settlers felt antagonism against Charleston aristocrats. Those aristocrats controlled regional government and refused for a time to grant the settlers representation in the Commons House, the state assembly.

For the pioneers, many of whom detected condescension in the eyes of upper-crust Charlestonians, there was no need to look across the sea to find culprits guilty of taxation without representation when villains were perceived much closer to home. Consequently, many of these resentful settlers were unmoved to join Charleston Rebels when they began to clamor for war against Britain after the first shots were fired in Lexington and Concord, Massachusetts, in May 1775.

Many others throughout the colonies were also disinclined to revolt, according to Samuel Adams, an early spokesman for the revolution. He estimated that about a third of the colonial population initially disfavored the brewing fight. But in the backcountry of Georgia and South Carolina, that number was closer to half. Nonetheless, the conflict came. The first act of war sanctioned by South Carolina government occurred in 1775 just south of the reservoir area at the British Fort Charlotte.

Backcountry settlers, who had finally won a governmental voice, participated in the newly-elected Provincial Congress that authorized raising troops, printing money, and ap-

pointing a 13-member executive committee to manage South Carolina's government. This Council of Safety included some members who were still disinclined to sever alliance with Britain, but the fervor against the Crown overwhelmed them. With the council's approval, the South Carolina Rangers marched toward Fort Charlotte, and on July 12, 1775, seized weapons and supplies from the British.

The first known local casualty from the war, however, was not suffered at Fort Charlotte but at the trading post of Ninety Six the following November. The battle came after Rebels seized and imprisoned Robert Cunningham in Charleston. Cunningham was a leader of those colonists who wanted to remain under British rule—the Loyalists. Frontier Loyalists were incensed over Cunningham's arrest, and with a force of nearly 2,000 men descended on Ninety Six, seeking revenge. They surrounded 562 Rebel militiamen commanded by Andrew Williamson in a hastily-built stockade. When the smoke cleared, one Rebel was dead, and 12 more soldiers were wounded. The battle ended with a truce, but elsewhere conflict continued to erupt.

While there were full-scale, pitched battles in the South between regular armies during the Revolutionary War, the details of which were often faithfully recorded, there were also many unheralded ambushes, duels, and disorganized assaults by groups of ragtag farmers-turned-soldiers. The nature of individuals drawn to frontier life and the roles some played in the conflict are exemplified in the tale of Nancy Hart of Georgia.

Separating fact from fiction concerning Hart, who has become a legend, is difficult. She was reportedly six-feet tall. Some say she was cross-eyed, making it difficult for onlookers to tell where she was pointing her gun,

which could prove fatal. Her bellicosity and prowess with a rifle were considerable, leading the Indians to call her "Warwoman" and to name Warwoman Creek near her home in her honor.

Married to Benjamin Hart and mother of six, she favored the revolution, and her support of the Rebels was apparently known to Loyalist soldiers patrolling the area. When six of them stopped at her secluded house in her husband's absence and demanded she feed them, Hart refused, saying she had only one turkey left. One of the soldiers then shot the bird and again demanded that she prepare them a meal. Outnumbered and goaded by the men's taunts, Hart complied while she hatched a scheme to foil the intruders.

Plying them with alcohol and, by some accounts, joining in the tippling, she sent a daughter into the woods ostensibly to fetch water but really to alert her husband Benjamin of the danger. The family used blasts on a conch shell to communicate over distances, and when the girl gave three blows on the makeshift horn Benjamin Hart knew he should return at once and bring help.

Meanwhile, Nancy Hart used the soldiers' inattentiveness while they noisily drank and ate to sneak two of their rifles out of reach and through a gap in the wall of her rough-hewn house. She was pushing a third gun through the crack when one of the soldiers noticed and alerted the others. Quickly, Hart raised the gun to stop them from disarming her and warned them not to move. When one man ignored her order and attempted to take the weapon, she shot him dead.

Her daughter returned just then and handed her another of the rifles, which Hart used to hold the soldiers at bay. But again one or more of the men charged her, Hart fired, and another Loyalist slumped to the floor, wounded.

The soldiers then attempted to reconcile with the formidable frontierwoman, but she was unmoved and kept them at gunpoint until her husband appeared with several compatri-

ots. They wanted to take the prisoners outside and shoot them, but Nancy Hart preferred hanging them instead. One by one, they took the five soldiers, including the wounded one, and fitted them with nooses, then strung them up from trees. Some reports say that the Rebels, including Nancy Hart, whistled or sang "Yankee Doodle Dandy" while the nooses tightened and strangled the men to death.

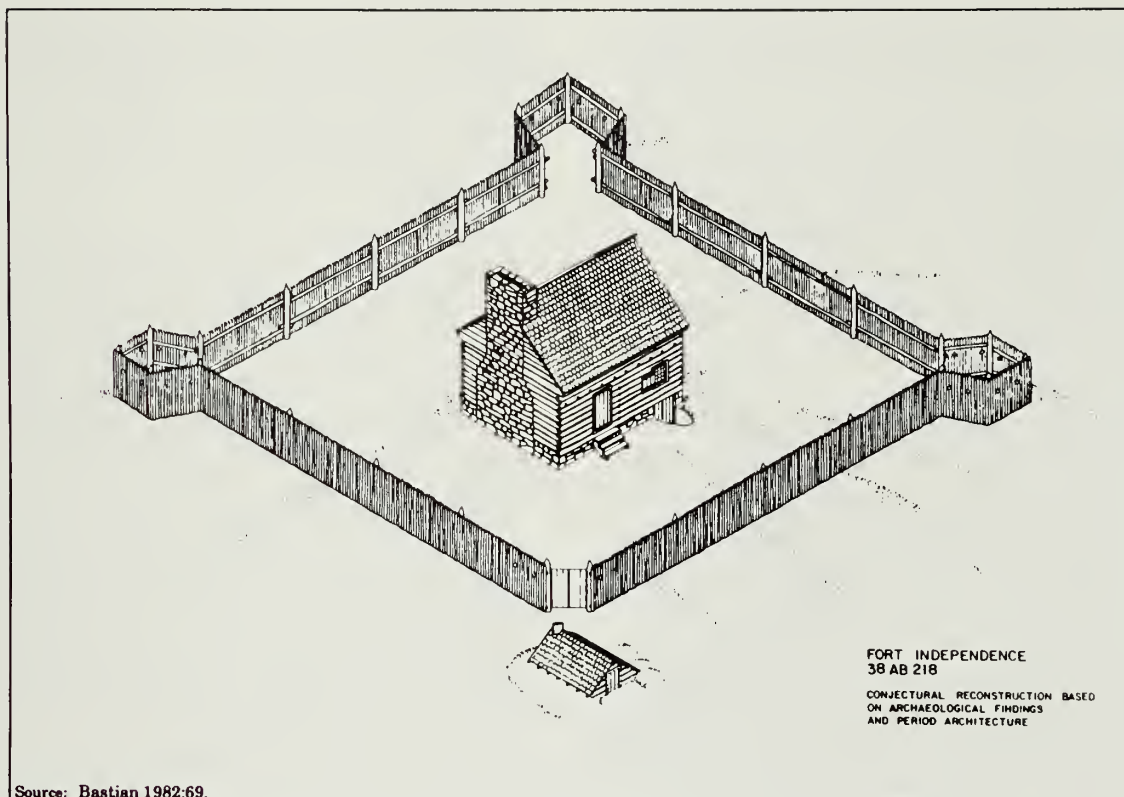
How they disposed of the bodies apparently was answered in 1912 when railroad workers near Elberton, Georgia, found six skeletons in shallow, three-foot-deep graves. The workers found the graves about a half mile from where the Harts once lived.

Hart County, Georgia, which includes part of the Russell Reservoir, and the county seat, Hartwell, were named for Nancy Hart, the only such dual honors awarded a woman in the entire United States, according to author and Georgia Governor Zell Miller, who wrote about her in his 1983 biography, *Great Georgians*. Miller also pointed out that Georgia's Nancy Hart Highway was then the only state highway in the country named for a woman.

After the British unsuccessfully attacked Charleston by water in 1776, and the colonists defeated and dislocated the Cherokee, friction in the area entered a lull of sorts. The Rebels were in charge, even in the backcountry where strong support for the Crown or neutrality persisted. Most Loyalists bided their time, waiting for a chance to strike.

In early 1777, the South Carolina Rebel government sent several regular army companies to guard territory near the upper Savannah River. One detachment traveled into the Russell Reservoir area to a small stronghold called Fort Independence that had already served as a bulwark against attacks by Indians.

Archeologists, directed by Beverly Bastian, uncovered the remnants of the fort during the Russell studies and also researched its role in the period. Located about 300 yards from the Rocky River in Abbeville County, Fort Independence was not the stalwart bastion that the term implies, but was most probably a small



Source: Bastian 1982:69.

Figure 110: Fort Independence was a Revolutionary War post in South Carolina near Rocky River. This is an interpretation of how the fort looked, based on archeological research.

homestead enclosed by a stockade fence as an afterthought. Robert Anderson chose the site, presumably for his residence, about four-and-a-half miles from where the Rocky River flows into the Savannah River, a setting where prehistoric people also spent time.

Documents were unclear when Anderson built the house, but it was probably after 1767, although a 1761 date is also possible. The date the stockade fence was erected around the house is also unclear. Archeologists think the stockade enclosure was not built at the same time as the house, but came later, possibly in 1774 when the Creeks were raiding settlers in the region. Chronicles from the era revealed that 12 forts were built along the Savannah River during the Creek assaults. By 1776, when hostilities with the British heated up, many of these forts were strengthened, possibly including Fort Independence.

The fort was different from many others of the era in the weakness of its stockade, a de-

fect detected by studying postmolds in the soil. Other forts of the time were protected by fences of closely-spaced posts anchored firmly in the ground, reminiscent of those built by Mississippian Indians. But at Fort Independence, big gaps up to 16 and one-half feet wide were left between the posts. The posts were formed from stout tree trunks up to a foot and one-half in diameter. While these big posts were fitted firmly into the soil, other wood pieces that filled the gaps between them apparently were merely nailed onto a series of horizontal boards attached to the posts. The result was a barrier that appeared deceptively substantial, like the strong fences around other forts. But while those fences could withstand heavy assault, the one at Fort Independence was much more susceptible to being breached.

Then why erect the fence at all? From all accounts, Robert Anderson, a militia captain, was a knowledgeable builder. He was even responsible for construction of one of the more

substantial defenses of the time, Fort Rutledge, in Lower Cherokee country. Possibly he built the Fort Independence stockade to fool the Indians, a temporary structure that he intended to strengthen later. Indians, who were most likely to make quick, surprise attacks, might be discouraged by the fence's seeming strength. Or, perhaps Anderson simply never had the help or the time to make the fence stronger and devised the best facade of resistance he could manage.

The fence around the fort was square with the four sides all about 76 feet long. At three corners, there were diamond-shaped enclosures (bastions) where defenders could stand during assaults and fire parallel along the fence at attackers. Archeologists found evidence of one small structure within one of the bastions that may have been an animal pen or a shelter for soldiers. The fourth corner of the fence was probably where the gate stood. This entrance faced a spring about 200 feet away where fresh water bubbled year-round.

In the center of the stockade, atop a slight knoll, stood the building archeologists think Anderson built originally as his house and which became fort headquarters. Anderson was the first to command troops at Fort Inde-

pendence. As a captain in the Ninety Six Militia, he and his soldiers apparently spent long months based there, using the place as a base for raids into the wilderness to fight Indians. One of the soldiers later recounted his experiences:

"As soon as I joined the service (October 1776), which was to aid in guarding the frontiers and in repelling the Indians, Captain Anderson stationed himself at one of these forts called Fort Independence...where we remained fourteen months in constant service against these Indians—in scouring the country and protecting the inhabitants."

When South Carolina officials decided to place regular army companies near the Savannah River, Anderson sold them Fort Independence and left for duties elsewhere, but his name was to reappear in chronicles of violent events soon to unfold nearby.

Captain John Bowie soon arrived at Fort Independence with a company of soldiers. He assumed command of the fort sometime between May and November 1777. Even though he was with the regular army, Bowie nonetheless took his orders from the militia leaders at Ninety Six.

The winter of 1777 passed fairly quietly for Bowie and for most soldiers in Georgia and South Carolina, but further to the north, Rebels in Valley Forge, Pennsylvania, were barely surviving. The effects of a cruel cold were taxing General George Washington's leadership to its limits. Meanwhile, the soldiers at Fort Independence waited for their first test.

Aspects of their lives were revealed in letters to Captain Bowie. Written more than 200 years ago, the correspondence provided researchers with important details about what life was like at Fort Independence. They learned, for instance, that Bowie and his wife apparently for a time shared the fort's only substantial building with a physician named Begbie. The letters also included details about the soldiers' spartan diet. Their

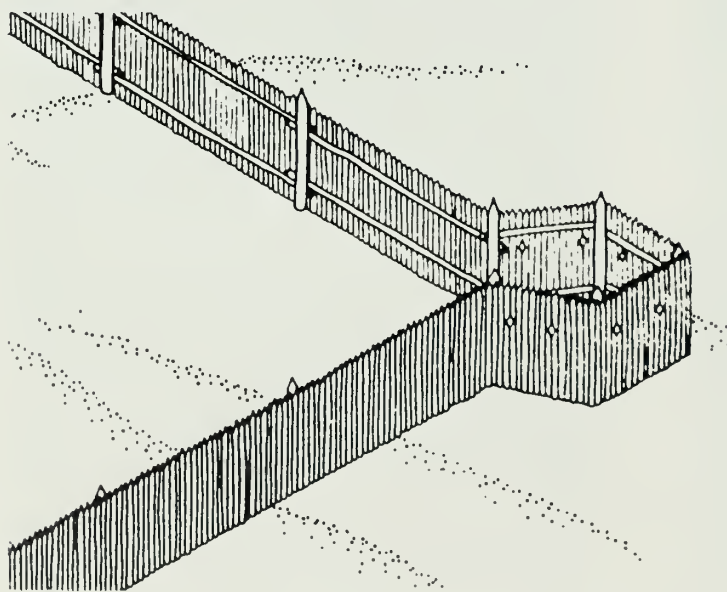
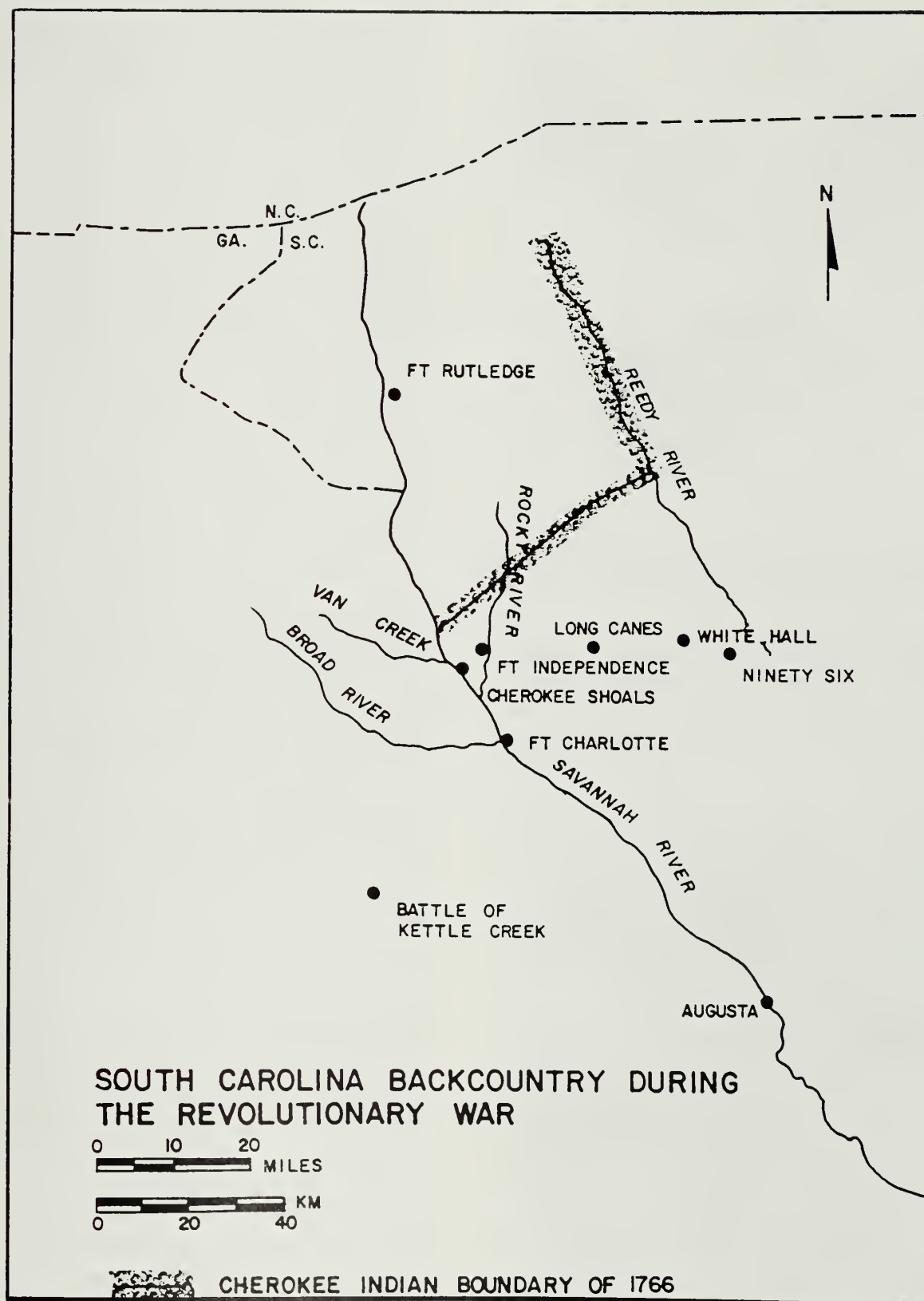


Figure 111: The fort fence was much weaker than it appeared from the outside. Defenders could shoot from three corner bastions.



Map 16: Fort Independence is shown near the Rocky River, along with other important Revolutionary War sites.

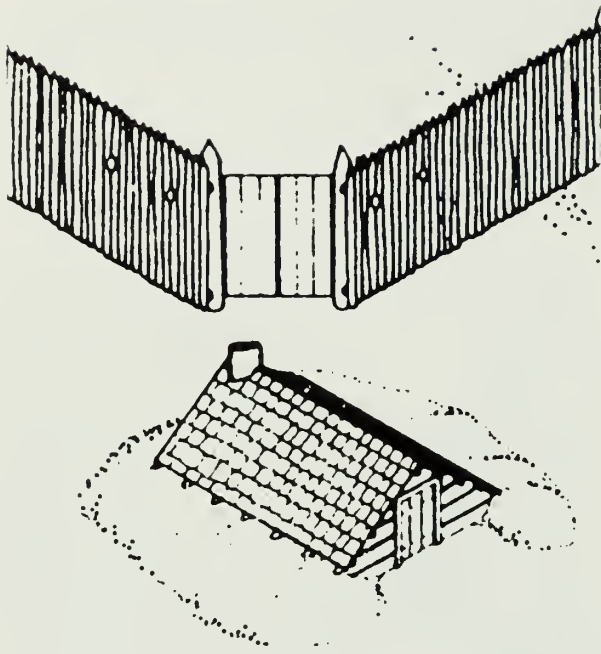


Figure 112: The dug-out hut was banked with earth on its sides and had a roof and possibly a chimney.

provisions, supplied by wagon from Ninety Six and another community called White Hall, consisted primarily of two staples—beef and flour. Some of the beef arrived at the fort in the form of live cattle, but most was already butchered and heavily salted for preservation. On average, every soldier received a daily ration of one pound of salted beef and one-and-a-half pounds of flour. Sometimes this was supplemented with sugar and shelled and ground corn, and by animals soldiers hunted and the wild plant foods they gathered. They apparently grew no crops at the fort.

Wagons also brought shoes, clothing, sealing wax, hemp, buttons, and rum. Alcohol apparently helped ease the boredom of a life spent waiting. Archeologists found a number of glass sherds from wine bottles in the fort ruins.

The only apparent shelters for soldiers were crude earthlodges dug just outside the stockade fence. Only traces of one earthlodge were found, near the fort entrance, but experts think there were probably other earthlodges that eventually collapsed beyond recognition.

An army company consisted of about 60 men, but desertions, leaves, and resignations were notoriously common, leaving many companies undermanned. Still, by the end of 1778, two companies were based at Fort Independence for about a month or two, which must have greatly crowded conditions. It's easy to imagine that on almost any night the soldiers gathered outside the stockade in the open air, with only the dreariest weather driving them inside the damp, cramped earthlodges. They would have sat close to campfires circling the fort, with the flickering light casting shadows back and forth across the ground, the fence, and their faces. Talk probably centered frequently on the question of when the British would finally come, while each man wondered how he would face the enemy.

The soldiers likely ate outside as well, but when the weather turned bad, they probably retreated like moles into their bunkers. Researchers found remnants of meals—30 bone pieces and remains from other foods—in the one excavated earthlodge. The soldiers ate pigs, chickens, cattle, and possibly deer, along with peaches, persimmons, and black walnuts.

To build an earthlodge, the soldiers dug a rectangular hole in the sloping ground. They then mounded loose dirt on the top edges of the hole, forming supports for a roof that resembled roofs for more ordinary houses, except this one rested on dirt. The soldiers made a front wall of logs and attached a door. They also possibly built a crude chimney for a fireplace near the rear of the earthlodge. The entire structure was only about eight feet long and seven feet wide, so claustrophobia was a likely result if three soldiers were assigned to the dugouts, as experts think was the case.

Life in the fort's headquarters was considerably easier than the circumstances in the dugouts. Items recovered from the headquarters' excavation included food residue similar to those from the soldiers' hut, but also turkey and rabbit bones, corn cobs, a grape seed, and acorn remains. Researchers also discovered a



Figure 113: A food chopper with an S-shaped blade and several metal forks were found in the fort excavations.

concentration of wheat, barley, and oats, which were apparently stored in a sack or sacks inside the house just before it was burned to the ground by invading British sympathizers.

While rank had its privileges, evidence does paint Captain Bowie as dedicated to his post. He actively recruited enlistments and took care of his men. Even some of the cattle consumed by the soldiers were apparently provided by Bowie, perhaps from his farm near Long Canes Creek. But the Bowies did enjoy amenities, besides a house above ground, that the troops didn't. For example, they served food on china, which Mrs. Bowie must have carefully protected in this frontier outpost as a reminder of civilization. Her tableware collection apparently didn't include a complete set of one pattern, however, because a mishmash of pieces from five different motifs emerged in the excavations. None of the patterns were especially exotic or expensive for their time, although Chinese export porcelain was in the lot.

A letter Bowie received from his commanding officer provided insight into the political wrangling of the time. The letter contains a list of incumbent candidates the officer favored in a coming election at Ninety Six. Challengers were trying to unseat these representatives to the South Carolina state assembly because

they considered them, as Ninety Six Militia members, unwilling to negotiate a peaceful end to the war. The unwritten but implied order to Bowie was to command his soldiers to get to the poll early and to cast ballots for the preferred candidates.

Near the end of 1778, the relative quiet in the area ended as the British fleet successfully stormed Savannah, Georgia, which had grown from a small settlement on Yamacraw Bluff to a city of 450 houses. The Crown officers' plan was to capture Augusta, which they soon did, and Charleston, and eventually to gain control of all Georgia and South Carolina. Their strategy for victory included an uprising of support from backcountry Loyalists.

About this time, Bowie requested permission to abandon Fort Independence and establish another garrison. He was probably concerned about the vulnerability of the insubstantial post in the face of the heavy British attacks everyone now assumed were inevitable. But the nod to leave did not come from his commanding officer until the final day of December 1778. Bowie was then directed to use his men to build a fort closer to the Savannah River, and to follow construction advice from

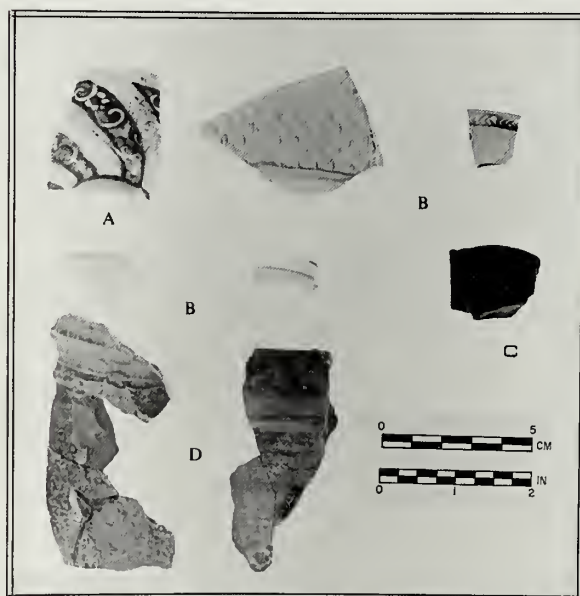


Figure 114: Tableware sherds found were A, Chinese porcelain; B, saltglazed stoneware; C, Jackfield ware, and D, earthenware.

"S. Barker"

The majority of ceramic sherds found at Fort Independence were cheap, low-status ware that outnumbered the finer teaware pieces by ten to one. In contrast, much more finer teaware was uncovered at another revolutionary post, Fort Moultrie, near Charleston, a further indication that life on the periphery was rougher edged.

Using an analytical formula devised by Stanley South, researchers determined a median manufacturing date of 1747 for the ceramics at Fort Independence, indicating they were used some 30 years before they were discarded. This long service was considered at least partly the result of war-time blockades, which prevented British goods from being imported and restricted availability of French and other European wares.

Other artifacts found at the fort included forks, all with only two prongs, the head from a claw hammer, and an ice chopper, apparently for cutting holes through lake ice. In addition, researchers uncovered a food chopper with an S-shaped blade and fragments from brass shoe buckles. They also found a brass trunk hinge, a surveyor's hinged tool probably used to measure map distances, and part of a glass lid for a compass. Another curiosity was a brass circular name plate inscribed "S. Barker."

the man who had built Fort Independence, Captain Robert Anderson. The site of this second fort, also called Fort Independence, has not been found.

When a Loyalist colonel named William Boyd arrived with about 900 men in early 1779, he found the first Fort Independence empty. Boyd's troops were similar to the citizens' army of the Ninety Six Militia, not career soldiers but mostly farmers and merchants who temporarily picked up arms for a cause, in their case the preservation of British rule. Boyd and his band tried in their march across the territory to rouse other Loyalists to join them against the Rebels. They ultimately planned to cross the Savannah River and join the British Red Coats at Augusta.

Where Bowie and his soldiers were at this juncture is unknown. Perhaps they were at the new fort or were fighting somewhere else. During the next year, they were to engage in far-flung battles. Nor do we know what Boyd and his Loyalist troops did when they first reached Fort Independence. Maybe they spent the night, sleeping in quarters only recently vacated by their enemies. They probably looted the place of anything useful, a common war-time practice on both sides. Then, in another familiar action of war, they set the

entire fort on fire, including the stockade fence. Just about everything burned to the ground.

When they departed, Boyd and his force moved toward the Savannah River nearly five miles away. Researchers Richard Taylor and Marion Smith summarized from historical accounts what happened next:

Boyd's soldiers halted near a shallow part of the river called Cherokee Shoals. There, eight Rebels occupied a blockhouse, preventing an unobstructed crossing for the Loyalists. Boyd demanded that the Rebel leader, a lieutenant, surrender and gave him several hours to comply. But the Rebels had no intention of giving in, and while Boyd waited for an answer, several slipped unnoticed out of the blockhouse rear. They hurried across the river to reach Rebel troops nearby, where they secured a cannon. Somehow, they managed to get the cannon back to the blockhouse before Boyd's grace period ended. When the Loyalist commander demanded an answer from the Rebels, it came with a cannon blast.

Boyd did not retaliate, perhaps realizing that a much larger opposing force was close, readying for an assault against him and his soldiers. Instead, he led his troops up river about five miles to find another place to cross.

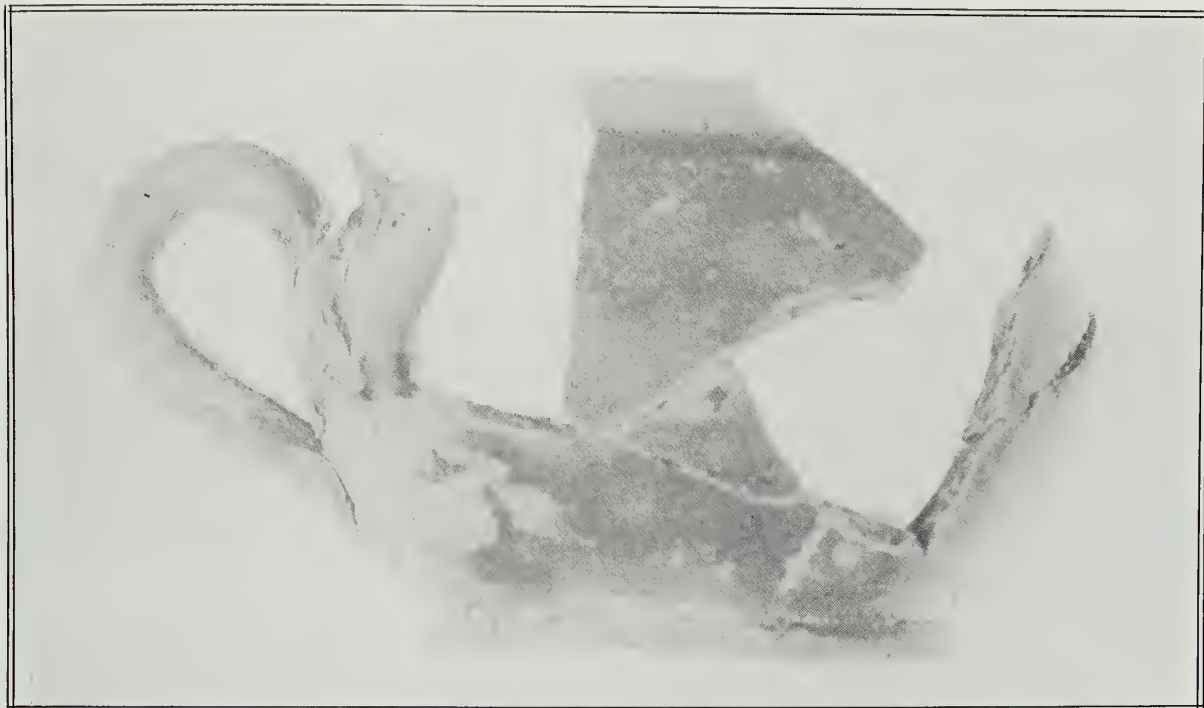


Figure 115: Pieces of a porringer, a shallow cup with a handle, came from the fort excavation. Fitted together, they form a vessel about five inches wide and three inches tall.

Not long after, Captain Robert Anderson arrived at the blockhouse accompanied by 80 to 100 militiamen, where he learned of Boyd's movements. Anderson decided they should immediately cross the Savannah River in hopes of reaching Georgia on the other side before Boyd, securing a better position in the battle Anderson planned to wage against him. So, while Boyd and his men gathered boats and rafts to cross the river, Anderson and his force forded quickly at Cherokee Shoals and set out northward to meet the Loyalists.

The clash between them came where Van Creek flows into the Savannah, not far from Rucker's Bottom where so many prehistoric artifacts were uncovered. Anderson's militia arrived and began to shoot just as the Loyalists were climbing out of the river and up the banks. The Rebels were vastly outnumbered and outgunned, and their assault was further hindered by a thick growth of cane along the water's edge. The fight became a rout. Finally, after 20 of his men were killed and 26 more were captured, Anderson ordered a retreat. Boyd's losses were also heavy, with 100 men either killed or lost through deser-

tion. Even though the Rebels lost the skirmish, their efforts may have paved the way for Boyd's eventual defeat in another battle soon to follow.

Not far away, Nancy and Benjamin Hart were now part of the Georgia forces commanded by General Elijah Clark. Accounts say that Nancy Hart served as a spy for Clark by dressing like a man and acting deranged so that no Loyalists would suspect her as she moved close to observe their actions. In one of her exploits, she reportedly made a raft from logs tied together with grape vines to cross the Broad River and then moved in close to spy on Colonel William Boyd's troops. She returned safely with news for General Clark about the opposition's numbers and movements. When General Clark set off to fight Boyd's soldiers, Nancy and Benjamin Hart and their oldest son Morgan accompanied him.

The Hart family fought in the battle of Kettle Creek on February 14, 1779, just southwest of the Russell Reservoir area. Andrew Pickens, in command of the Ninety Six Militia, had united with Clark and his troops. Together they soundly defeated the



Figure 116: The rock cellar of Fort Independence headquarters remained intact hundreds of years later. The exceptionally big chimney's foundation is visible at the top of the photograph.

British sympathizers in a surprise attack, despite having about half the number of soldiers.

Many men were wounded and some 70 soldiers died, including Colonel Boyd. Ironically, he was killed when he was only hours away from the British Red Coats he had set out to join. On the Rebel side, Clark's horse was killed beneath him, but the general and the Harts survived. Among the Rebel heroes was a black freedman, Austin Dabney.

The victors freed the 26 militiamen captured earlier in Anderson's defeat at Van Creek and took 23 Loyalist prisoners of their own. Some of these captives, apparently officers, were later hanged at Ninety Six.

After the Rebel victory, there was talk that British attempts to retain control were finished for good in the territory, but those hopes

proved premature.

Not long after the cinders cooled at Fort Independence, someone, perhaps soldiers commanded by Anderson or Bowie, returned. They probably salvaged whatever useful had been overlooked before by the invading Loyalist troops, particularly items such as nails. Little was wasted in the frontier where supplies were hard to come by.

Archeologists were able to determine that someone had returned to the fort because fire debris was deliberately collected and then thrown into the hole where the house cellar once was. Researchers concluded that this cleaning occurred soon after the fire because there were no signs in the cellar's original debris of weathering or of deposits moved around by water. Such evidence would have been there if the debris had been uncovered

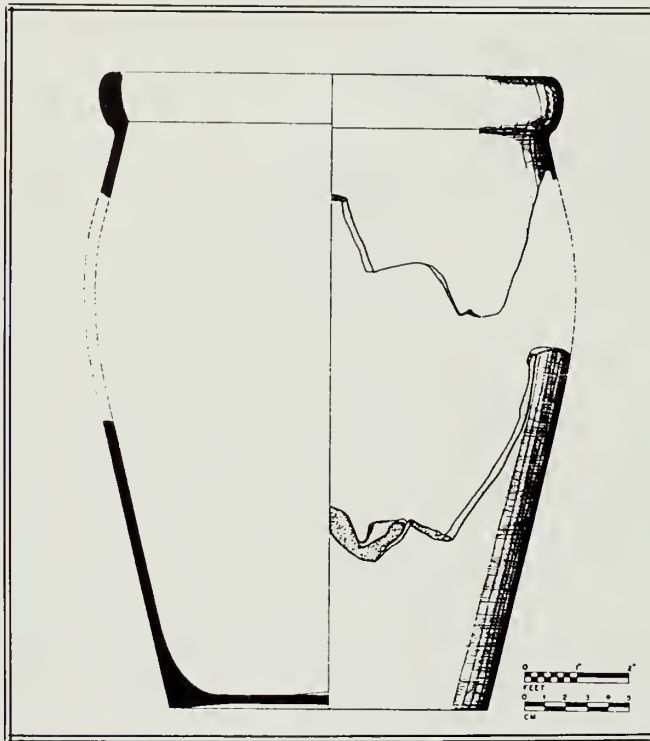


Figure 117: An earthenware jar, found in pieces and reconstructed in a drawing, was used at the fort for food storage.

for even a month in February when the fire occurred. Instead, more rubble was quickly piled on top, including possibly burned stockade posts pried out of the ground.

The Ninety Six Militia and Colonel John Bowie reappeared in war annals written about the efforts to reclaim the city of Savannah in September and October 1779. The Ninety Six Militia was part of a force of 5,000 men which included French soldiers and sailors commanded by Admiral Compte d'Estaing. British troops within the city numbered only 2,000, yet they were able to defeat the assault and kill many of the opposing force. The French lost 635 men, while 457 Rebels died, compared to British losses of only 55.

This defeat was followed in May 1780, by an even heavier blow to hopes for independence. Rebel General Benjamin Lincoln surrendered his army of 5,500 to the British, turning over Charleston to the Crown's control. Now, even the Continental Congress conceded that all of South Carolina and Georgia was conquered territory. Victorious, the

British paroled all militiamen on their solemn word not to fight again.

More than half the South Carolina population, according to some estimates, was applauding the war's apparent end, but their relief was premature. Not satisfied with surrender and promises not to fight, the British began to press former militiamen to declare their loyalty to the king. Those who refused faced possible branding as traitors, even execution.

Such declarations of allegiance must have stuck in the Rebels' throats. And if many had a hard time accepting defeat, the urge to keep fighting was further fueled by the inflammatory actions of a British cavalry officer named Banastre Tarleton. Tarleton and his men cornered a regiment of Virginians who had traveled into South Carolina to join the fight against the British. The overpowered Rebels raised a white flag of surrender, but instead of accepting their submission, Tarleton ordered an attack, killing them all.

Outraged by news of Tarleton's massacre,

Built To Last

Captain Robert Anderson built an especially solid house at Fort Independence. The house was probably one-and-a-half stories tall, with a cellar foundation made of big, closely fitted rocks with any gaps filled with yellow clay. At twenty-and-a-half by twenty-six-and-a-half feet, Anderson's house was bigger than most on the frontier, but smaller than many Charleston residences. Most frontier dwellings measured only sixteen by sixteen feet, a size that could be adequately heated by a single fireplace.

Archeologists determined through excavation that Anderson designed a bigger than usual fireplace to compensate for the house's size, and placed the chimney flush with an outside wall. Most other houses of the time had chimneys exposed on three sides, making them more vulnerable to the elements than Anderson's.

The cellar walls rose above ground level and had a wide door near one corner in the front side of the house. Archeologists detected this door from an opening they found in the stone foundation. Researchers also noticed a notch on one side of the opening and a charcoal stain on the other side, revealing where the door frame once stood. Nearby hinges showed that double doors had sealed the opening. This cellar entrance was reached from the outside by climbing down a steep ramp that inclined about four feet below ground level.

Walls above the foundation were built of heavy hewn wood. Archeologists found imprints of the wood grain in burned clay once used to stuff cracks in the house. They also found similar grain impressions in insects' clay nests. Above the living quarters, there was a loft for supplies, topped by a roof with triangular gables on both sides. A window was built into the front of the house just above the cellar entrance, and another was placed in back. There was only one other door, also at the front, and that door was probably reached by climbing wooden stairs.

other Rebels decided to break their promises of loyalty and fight again. Many joined guerilla bands led by Thomas Sumter, Francis Marion, called the "Swamp Fox," and Andrew Pickens, the leader at the Battle of Kettle Creek.

The Ninety Six Militia that Pickens commanded resurfaced to fight in decisive battles that helped push the British towards the sea. They fought, for example, at Cowpens, South Carolina, where in 1781, Banastre Tarleton lost, through death or capture, more than 900 soldiers.

The militia also attempted to recapture their old headquarters at the outpost of Ninety Six from the Loyalists. General Nathanael Greene and Lighthorse Harry Lee, father of Robert E. Lee, participated in the Rebel assault. The militia tried to retake the town's stockades by firing flaming arrows and tunneling underground, but their efforts eventually failed. They had to retreat when 2,000 Irish troops arrived to help the British sympathizers. The

Loyalists, however, willingly abandoned the post soon thereafter and headed for safer ground as they saw British chances for success begin to crumble.

The Crown's forces' turn to admit irrevocable defeat finally came in October 1781, when

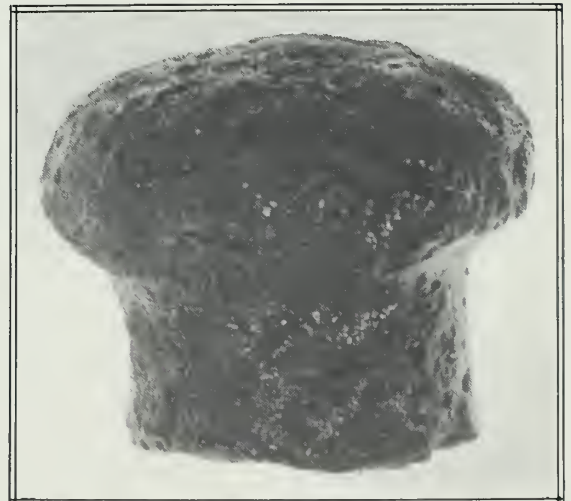


Figure 118: A cannon pommel found at Fort Independence was one more reminder of the site's war-time history.

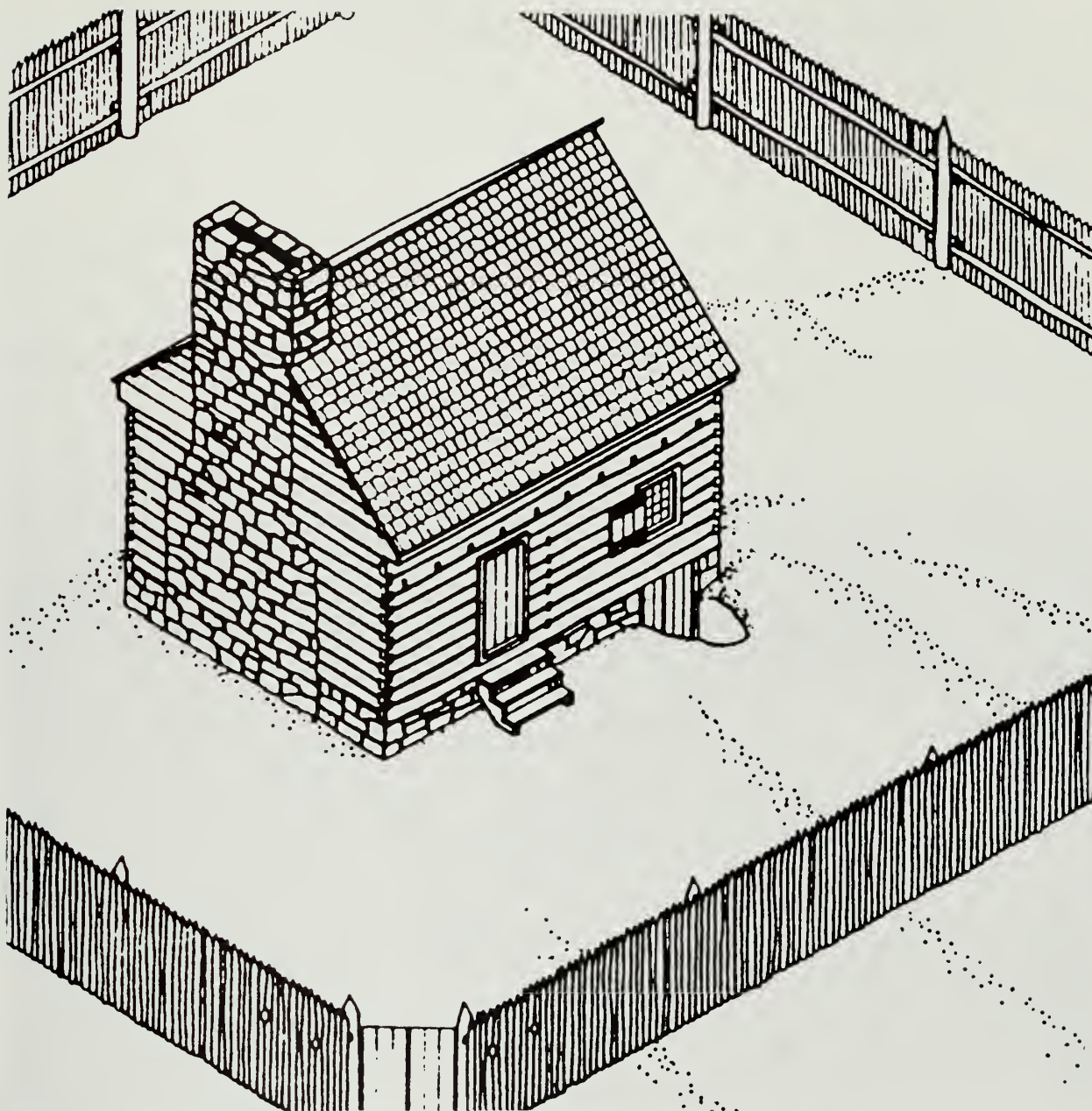


Figure 119: The chimney of the headquarters was flush with the house, protecting it from the weather. Double doors led to the cellar down a short ramp. There was only one other door, also in front.

General Charles Cornwallis surrendered to General George Washington at Yorktown, Virginia.

But in South Carolina, skirmishes erupted for another year while diplomats haggled over terms. The British army finally evacuated in December 1782, and set sail for home from Charleston harbor.

They took with them 4,000 Loyalists who feared Rebel retaliation. Five-thousand of the colonists' slaves also went with them.

The American Revolutionary War was over, but in the South Carolina backcountry, which encompassed the Russell Reservoir land, 1,400 orphans and widows were left to remember.



Figure 120: Millwood Plantation belonged to James Edward Calhoun, descendant of early South Carolina farmers. Erosion from poor farming practices common in the region is visible in the foreground.

Chapter 13: Ghost Towns and a King

1783 to 1861

There is a small point of land just south of the Russell Reservoir where you can stand between the flow of two waterways, the Savannah and Broad Rivers. There, if you look closely in a clump of trees, you will see remnants of a chimney and wall and scattered pieces of brick in the fallen leaves and brush, all that is left to mark a ghost town called Petersburg, Georgia.

The rest of this once thriving community is now submerged under water and long forgotten. But Petersburg enjoyed a boom of commerce and population just after the Revolutionary War as the principal commercial center serving the area now included in the reservoir boundaries. Although Petersburg was outside the territory studied by Russell investigators, its history was intertwined with the area and its people.

Once the Revolutionary War ended and the threat of Indian raids also stopped, more settlers began arriving in the Savannah River Valley. However, for various reasons, the population in the reservoir area remained small. One reason was the skirting of the area by the main transportation routes, which crossed the Savannah River to the north and south. The main trails bypassed the vicinity because of the rugged terrain in South Carolina immediately to the east of the river. Petersburg benefitted from this detour and developed where the major route into Georgia crossed the river to the south. Once the main towns of the region, such as Petersburg, developed some distance away, these communities attracted even more traffic and were soon dotted with schools, churches, and courts—the signposts of civilization that drew even more people.

Settlers who did build homesteads within the more isolated reservoir area, often soon

left, lured westward by the promise of the frontier. By the war's end, the frontier was no longer the Savannah River, but was now farther west at the Oconee River in central Georgia. Soon, however, the Oconee would also be deposed, and a new frontier would arise, and so on, river by river, as pioneers pushed the border relentlessly westward in their hunger for cheaper and better land. If the best bottomland was taken along the Savannah and the Oconee, there would surely be more beside another river up ahead. When the nation was new, there seemed to be no limits to the availability of good land if people were only daring enough to pursue it—and lucky enough to survive the quest.

There were also those who left the region because there were already too many people to suit their tastes. Some settlers just didn't want to be close to anybody who might infringe on their privacy and freedom. Also, neighbors sometimes built fences, which were unacceptable to those who wanted their livestock to roam free.

But an even more prevalent cause for settlers to uproot themselves was the erosion created by their own farming practices. Land devoid of top soil and scarred by ditches and gullies quickly became common in the uplands. When farmers cleared trees, which they often did by the wagonload, they eliminated the forest leaf canopy shielding the earth against wind and rain. Also lost were the many tree roots that had reached broadly across the landscape, holding soil in place. Plows further loosened the dirt in flat, unprotected expanses. The terrain was unable to withstand wind and rain, which soon removed the fertile top layer and left ravines instead.

The area was so devastated that it became part of what geographer Stanley Trimble



Figure 121: A crumbling chimney and scattered bricks are all that is left of the ghost town of Petersburg, Georgia, once a thriving community on the Savannah River.

called an "erosional tinderbox." Uplands often began showing erosional ditching within the second or third year after farmers cleared away trees. Instead of repairing the damage they had caused, many farmers instead abandoned the land and set off to repeat their mistakes somewhere else.

Bottomlands near the river held fertility, and therefore farmers, longer. But even farmers with rich soil could still catch the itch to go west. As plantation owner James Henry Hammond, who lived near Augusta, Georgia, wrote: "I have been trying to get over my desire for a Western plantation, but every time I see a man who has been there, it puts me in a fever."

Prospective early settlers often sent only one member or a few of their family to the land along the Savannah River to assess the place's promise. If the scouts' reports were good, the rest of the family followed. In 1875, some members of the Rucker family, long-time residents of the Virginia town of Ruckersville, arrived in the Georgia Piedmont. John Rucker soon followed and helped found Ruckersville near the Savannah River, a town that

became an important business center during the 1800's. John Rucker's son, Joseph, one of the region's early bankers, eventually became Georgia's first millionaire. A neighbor, Stephen Heard, also became prominent as Georgia's governor in 1781. He established Heardmont Plantation which eventually gave a nearby community its name.

Because of poor transportation between the Piedmont and the coast, and because so many families had ties to the Northeast, much of early trade probably moved back and forth to the Northeast over inland wagon trails. But any trade was minimal. In the years immediately following the Revolutionary War, the Piedmont consisted of a sparse patchwork quilt of small, irregularly-shaped subsistence farms. Class distinctions among the population were few, although some owned more land and more fertile soil. Small, independent farmers predominated, which suited the wishes of some governmental leaders, particularly in Georgia.

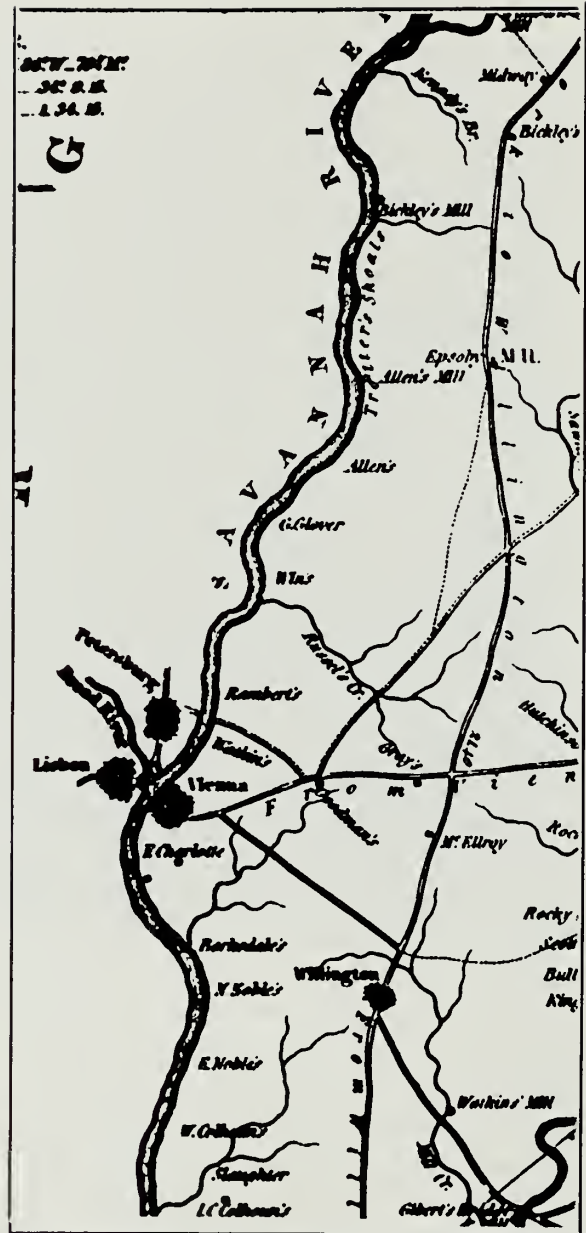
Georgia's British founder, James Edward Oglethorpe, had stipulated that slavery was forbidden in the colony. Nevertheless, slavery

was already well entrenched along the coast of South Carolina by the time Georgia settlers arrived. Coastal rice planters were reaping enormous profits from their use of free labor, which stirred Georgians to want to share in the riches. Within 17 years, they won the right to own slaves, too.

The number of slaves in both states mushroomed, so that by the end of the Revolutionary War, Georgia and South Carolina each had Black majorities, which caused concern to some, including Georgia Governor James Habersham. He promoted policies encouraging small farms inland to counter the rising use of slaves. But profits were usually small, if any, on the early, small Piedmont farms. More often, farmers merely got by—growing corn, wheat, rye, and sweet potatoes. They often kept chickens and a few cattle for their own consumption, and sometimes grew tobacco.

Tobacco was the first crop to be exported from the upper Savannah River region, and it was tobacco which launched the short, but vibrant life of Petersburg. Dionysus Oliver, an entrepreneur from Virginia who founded the town, received the right from Georgia's state government to set up a tobacco inspection barn near the river. State officials wanted to encourage exports by enhancing the reputation of local tobacco, which prompted inspections to assure that only high quality leaves left the area.

The inspection station became the linchpin in Oliver's success with Petersburg. In the early 1780's, he carefully planned the town on land he owned, dividing the property into 86 half-acre lots. By 1808, he had sold every lot, as well as the rest of his surrounding 9,000 acres. Petersburg by 1800 included a doctor's office, a post office, warehouses, houses, and a public well. By 1804, there were at least nine stores. And by 1805, a newspaper, *The Georgia and Carolina Gazette*, was published to communicate items of interest to the growing population. But apparently the citizens weren't so interested after all because the paper failed after a year.



Map 17: Petersburg, Georgia, appears where the Savannah and Broad Rivers meet in this 1825 map.

The town, according to one report, once boasted as many as 100 buildings. Commercial interests rather than residential ones dominated, and the lifeblood of the place became the Savannah River nearby because of its usefulness in transporting tobacco. Oliver's town became widely known as the place where tobacco was loaded onto Petersburg boats—shallow-bottomed keel vessels—then transported downstream.

The community's influence even stretched out of state with the election of two residents, Judge Charles Tait and Dr. William Wyatt Bibb, to the United States Senate. Less favorable, however, were some reports recounting an attitude of superiority among the "cosmopolitan" and "staid" Virginians in control of the town.

Not far away, two other towns—Lisbon and Vienna—straddled the same juncture of rivers as Petersburg, but neither was as prosperous as Oliver's brainchild. Petersburg had access not only to river transportation, but was also part of the stagecoach route south to Augusta, and another line that ran from Milledgeville, Georgia, all the way to Washington, D.C. Business owners, residents, and visitors alike must have foreseen only a bright future for the community, making its swift collapse all the more cruel.

An observer wrote in 1849 after visiting Petersburg: "This was once among the prosperous towns in Georgia, but it is now in a state of dilapidation. A feeling of melancholy and loneliness is experienced by the visitor when he remembers what the town was in former days."

Just as river transportation contributed to the town's success, it also played a part in its failure. Steamboats began coursing up and down the Savannah in 1810, traveling as far north as Augusta, which became more important as a result. But the big boats, capable of carrying much more cargo and passengers than the Petersburg keel boats, couldn't go past Augusta because of the many shoals in the river beyond there. Later, when the railroads came, the trains passed through Augusta as well, not Petersburg, sealing its doom. The town went from being in the center of activity to finding itself off the beaten path. Even the post office closed by 1855. Not even letters were leaving Petersburg anymore.

Like so many other places, Petersburg's depopulation was also a result of the lure of the frontier. Some of the community's most prominent citizens, who originally came from

Virginia, couldn't resist the urge to go west, and moved to Alabama starting about 1810. An outbreak of yellow fever may have also occurred and further emptied the town.

But apart from these factors, the other major cause for Petersburg's demise was the advent of a new crop, cotton. Cotton changed everything. In 1793, Eli Whitney invented the cotton gin in Augusta, and soon the crop dominated so completely that people began calling it "King Cotton". The central sections of Georgia and South Carolina, including the reservoir area, became the main cotton-producing region for the entire country.

Unlike tobacco, cotton needed no inspection, and as more farmers turned away from tobacco to grow cotton, one of Petersburg's main reasons for existence disappeared. In fact, the development of cotton plantations decreased the need for towns generally because plantations were largely self sufficient. Planters often built their own cotton gins and mills for grinding corn and grain into meal, and allowed small farmers nearby to use the facilities for a fee.

Before the Civil War, there was little other industrialization in the South because the wealthy did most of their investing in more land and slaves to work it. A few mills and textile plants not associated with plantations did exist in the reservoir area, but not many.

Petersburg was not the only community to disappear. Edinburg, Georgia, established by early Scottish settlers, also vanished in a relatively short time. In contrast, a few small towns were born during this period, mainly as supply centers for small farmers. Lowndesville, South Carolina, was such a place, and continues as a small community today. In 1823, the town was called Pressley's Post Office, but that was changed to Rocky River Post Office in 1831. Altered a final time in 1836, the town was renamed Lowndesville to honor William Lowndes, a United States congressman.

Lowndesville offers further evidence, in the story of one of its early prominent residents,



Figure 122: Cotton caused dramatic change, including the death of Petersburg and the spread of slavery. Oxen pulled a wagon heaped with cotton bales into early Abbeville, South Carolina.

of how quickly fortunes could change for the worse. The town's development spread out around a store operated by Matthew Young, who was also the postmaster after 1831. By the 1850's, Lowndesville had grown to include two general stores, a Masonic hall, a bank, and a hotel, which Young built to lure tourists. He had also invested heavily in a resort lodge at nearby Diamond Springs. But the spring's mineral water didn't attract enough visitors to be profitable, and the resort went bankrupt. Young eventually sold his hotel in Lowndesville and joined the parade west, settling in Mississippi.

The plantation, an idea originated in the Caribbean, spread to the rice paddies of coastal Georgia and South Carolina, and then proved ideal for making profits from cotton.

The cotton gin also spurred success because it eliminated the previous time-consuming and tedious process of separating seeds from cotton fiber by hand. The gin used steel spikes and brushes attached to rollers to do the job quickly. Now, great quantities of cotton bolls could be processed in just a few hours, instead of the days the same task used to take. Free of seeds, cotton then was sent to textile factories in England, where it was woven into cloth. Eventually, raw cotton also went to textile factories in New England.

The change over to cotton and plantations occurred steadily throughout the first decade of the 1800's, but not everyone was convinced to switch to the crop. Embargoes preceding the War of 1812, the war itself, and uneasiness caused by Napoleon Bonaparte's potential



Figure 123: The building that once housed the bank in Lowndesville, South Carolina, is now abandoned. The town lost population because of soil erosion and the destructive boll weevil invasion.

effect on the cotton market retarded the transition somewhat. Then peace prospects in 1814 sent cotton prices soaring. From a low of eight to ten cents per pound in 1808 and 1809, the price shot up to 19 cents a pound in the summer of 1815. By 1817, cotton was bringing 31.25 cents per pound, and the coronation was complete. Cotton became the indisputable king.

Slave holding also became big business, even as many Whites continued to leave the area. Farmers, discouraged by erosion, the need to continually clear new land, and poor profits, regularly left, while those who could buy more land and slaves stayed and became the society's leaders.

In 1790, the local population included many more Whites than slaves. Figures from Abbeville County, South Carolina, which includes part of the reservoir area, show what happened next. Between 1810 and 1850, the county's White population decreased from 14,407 to 12,604. During the same period, the slave population increased dramatically from 6,664 to 19,391. By 1850, in Abbeville County, 60 percent of the population was slaves.

While every county along the upper Savannah River didn't have the same high percent-

age of slaves, the trend of rapidly swelling Black populations was repeated throughout the region. By 1860 and the eve of the Civil War, Hart County, which includes the northern portion of the reservoir area on the Georgia side of the Savannah River, had a population that was 30 percent slave.

Among the most prominent planters and slaveowners locally was James Edward Calhoun. Sometimes a visionary, Calhoun had an exploring mind and was often willing to experiment. He was born July 4, 1798, to a family who had known the worst of frontier life. Calhoun's maternal grandmother was among those killed in an Indian raid at the family's first settlement in the region near Long Canes Creek. Calhoun's father, John Ewing Calhoun, grew up in the area, eventually became rich, and was elected to the U.S. Senate. When he died in 1802, he bequeathed to James Edward, still just a boy, substantial amounts of land and slaves.

By age 18, James Edward Calhoun had joined the navy. He traveled widely in the service, sailing the Caribbean and Atlantic Oceans, and the Mediterranean Sea, attaining the rank of lieutenant, and gaining some knowledge of three languages besides English.

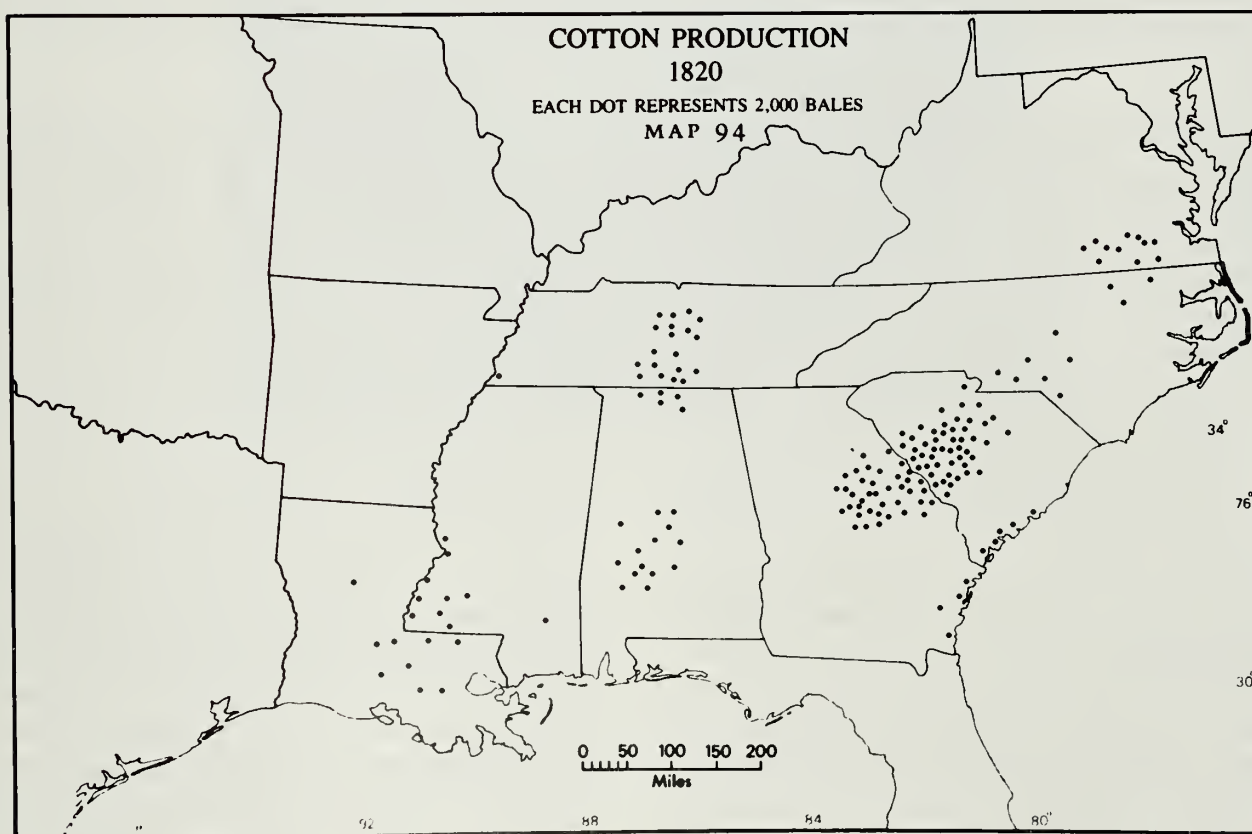
Numbers Tell The Story

Information gathered by Linda Worthy shows how, as time passed, more and more Whites owned slaves. She studied tax records in Elbert County, which includes the southern part of the study area in Georgia, and found that in 1809 slightly more than half of the landowners had slaves. By 1851, nearly 80 percent did.

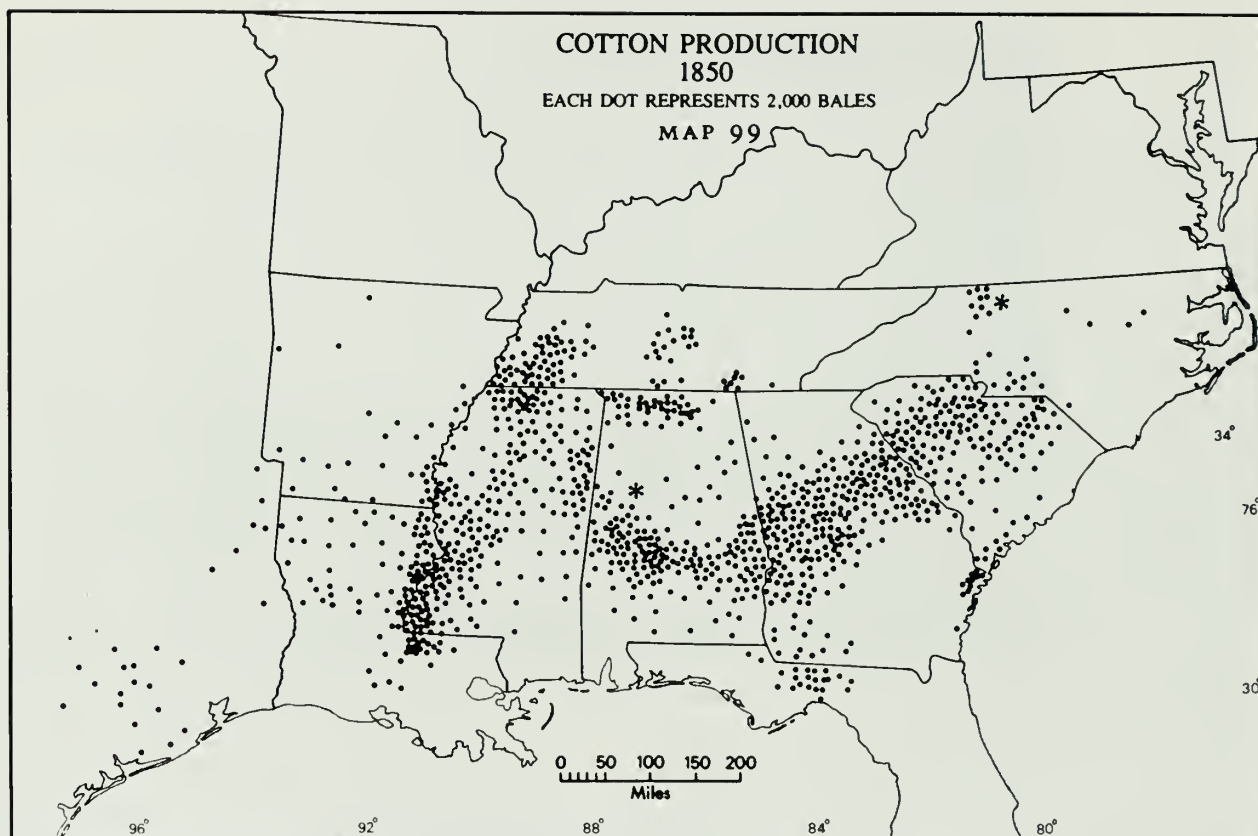
The hierarchical nature of Southern White society in 1851 is illustrated by other figures from part of the same county. The lowest rung of White society belonged to those who owned no land, and their number was indeterminate because they didn't appear in tax records. Nonetheless, they probably comprised an insignificant portion of the population.

Of those who did own land, 23 percent didn't have slaves, and 24 percent owned fewer than five. The middle class, fairly well-to-do farmers not wealthy enough to be considered planters, was the fastest growing group among Whites, and before the Civil War comprised 35 percent of landowners. A middle-class farmer had between six to 19 slaves. Experts generally classify those with more than 20 slaves as plantation owners or planters, and almost 19 percent of the landowners fit this category. Of these planters, only three owned more than 100 slaves apiece. Put another way, these three planters owned 26 percent of all the slaves in this part of Elbert County.

Slavery assumed more importance in the reservoir area than in some other parts of the South. Some experts, for example, estimate that three-fifths of all Georgians owned no slaves.



Map 18: The Russell study area was part of the leading cotton-producing section of the country in 1820. The long growing season was ideal for the crop. Each dot represents 2,000 cotton bales.



Map 19: By 1850, cotton production had spread throughout the South.

Calhoun also accompanied a military mission into the northern frontier of the United States where he developed a life-long fascination with the Indians. Later, he sometimes fed his plantation slaves a dried beef called pemican, which he copied from the Indians. He explained how to make the food in a letter:

"For several years, I have made, and always shall make, Pemican for my negroes. All the flesh parts of a Beef are cut into steaks, thin as possible; these are put over a fire of dry heat, made of bark or corn cobs, on a frame...If the fire be kept up steadily and the steaks turned a few times, by sunset, the meat will be safe...."

In his early life, he spelled his name Colhoun, but later changed it to Calhoun for reasons that aren't known. Slender and of medium height, James Edward Calhoun was known for his erect military posture, even in old age. Early in adulthood, he developed into a prolific correspondent, and among those he

wrote was his older cousin John C. Calhoun, a United States senator and ultimately vice president of the country. John C. Calhoun had tremendous political influence and is considered by many to be the intellectual father of the idea that the South should secede from the Union. He married James Edward Calhoun's sister, Floride Bonneau Calhoun, making the two men brothers-in-law, as well as cousins.

Throughout his military career, James Edward Calhoun's land was managed by paid overseers and family members, although he made some decisions via the mails regarding his properties. He also took several extended leaves to spend time in South Carolina. Although he was rich compared to most others, his plantation didn't prove terribly successful financially, at least initially. Like many cotton planters, Calhoun was often "land long and labor short", with never enough workers.

According to a team of researchers headed by Charles Orser from Loyola University of



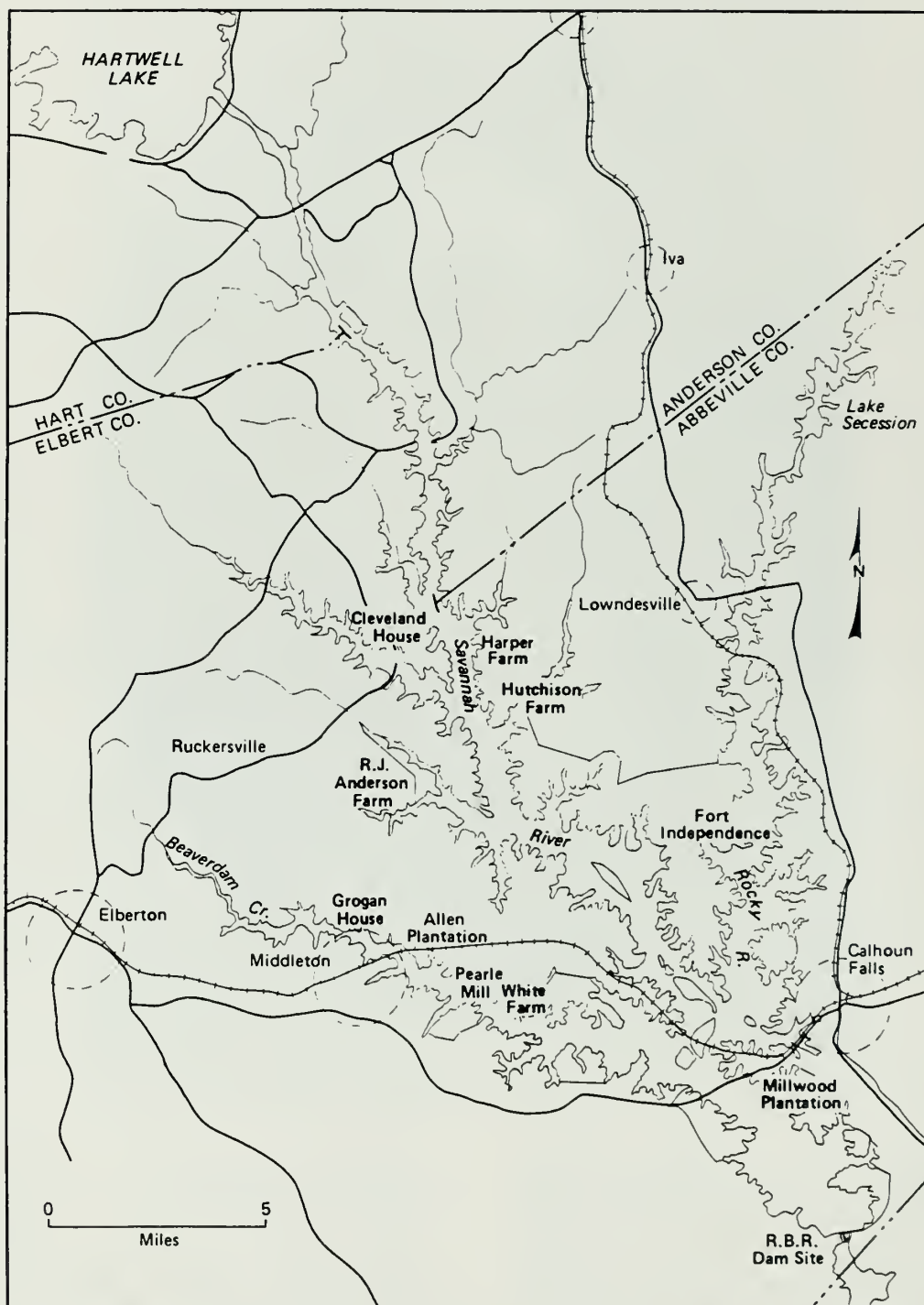
Figure 124: James Edward Calhoun was born circa 1798, son of a U. S. senator, cousin to a U. S. vice-president. He was a leading figure in the Russell study area.

Chicago, Calhoun borrowed money every year to plant new crops in his early life as a planter. Consequently, he had to subtract substantial debt payments before any profits could be realized when crops were harvested. To reduce his debts, Calhoun's relatives tried to sell some of his land while he was at sea. How successful they were is unknown, but in 1827 his brother wrote him that, "... times are so dreadful that there is no possibility of selling

any kind of property."

More bad news came in another of his brother's letters about the same time: "From present prices, I doubt it [the cotton crop] will do more than meet the current expenses of the plantation....There must be a change of staple, or we shall be most of us ruined." Corn and cotton were the primary crops on Calhoun's land at the time.

Despite his brother's pessimism, Calhoun



Map 20: Millwood Plantation was farthest south of all sites excavated during the investigations. Other important historical sites studied are also shown.



Figure 125: Millwood Plantation was part of James Edward Calhoun's 15,000 acres in Georgia and South Carolina. This enlargement of an 1879 photograph shows the main settlement.

was far from ruin. The lackluster performance of his holdings in his absence, however, perhaps encouraged him to quit the navy and return to manage his estate himself. Then, too, he had already developed a fascination with the latest agricultural and mechanical innovations, interests difficult to pursue on board ship. His mother was also urging him to return to help manage her plantation.

He arrived on leave in 1830 and never went back to the navy, finally resigning his commission in 1832. By then, he was already throwing his considerable energy into running plantations. Calhoun read widely about the latest developments in agriculture, corresponded with many about new techniques, and was a keen observer. An early advocate in the Piedmont of crop rotation and fertilizer, which many of his neighbors ignored until later, Calhoun apparently thought many of his neigh-

bors' ideas about agriculture were backward.

When he returned to South Carolina, the young planter was quite distressed at the condition of soil on his land. In 1832, he wrote: "Being able, at last, to bestow individual attention to my affairs, I have commenced the improvement of my lands, which have been shamefully abused by overseers." He also wrote: "So little regard has been paid to resting the soil, that I find much of it inclined to bake or run together, though naturally a delightful mellow earth."

To improve his property, Calhoun threw trash and brush into gullies to help hold the soil and planted small grains in as much of his cleared land as he thought he could spare from producing cotton and corn. He further revitalized the earth by plowing in dead plants as organic fertilizer, a step he described useful "to impregnate" the land. To keep the crucial



Figure 126: Calhoun's last probable residence is the building with two chimneys visible behind the well. The Millwood house was far from the grand mansion many assume was the norm for plantations.

top layer from eroding further, he invented a new form of plowing, apparently a type of contour plowing that he called "Loxotising," a combination of Greek and Latin words meaning plowing obliquely.

Calhoun's first plantation was called Midway. Soon, however, he began shifting operations to a place known as Millwood. Apparently a combination of inherited land and acreage he bought beginning in the early 1830's, Millwood would serve as Calhoun's home for the rest of his life.

Eventually, Millwood stretched in a skinny band for about seven miles along both sides of the Savannah River in Abbeville County, South Carolina, and Elbert County, Georgia. The plantation encompassed about 10,000 acres and became Calhoun's place to fulfill his ambitious dreams, which featured the river in a prominent role. His idea was to use the shoals to harness the river's power to operate

a manufacturing center which would supplement his agricultural income.

In July, 1832, Calhoun ordered work begun on the first element to make his vision come true. He would build a dam across the shallow part of the river in a spot called Trotter's Shoals, named after a man who owned the land before the Revolutionary War. The dam would help power mills Calhoun intended to build. But the construction didn't go well. By August 7, Calhoun had fired the man he hired at a wage of 50 cents a day to build the dam. Then, later in the month, the river rose and destroyed the dam, which Calhoun contended was poorly built. Eventually, though, he did succeed in placing a dam across the river to power various mills.

Calhoun's personal life is less-well documented, but nonetheless has triggered many tales centered around romantic loss. He married only once, to Maria Edgeworth Simkins

who came from a family that lived not far away. The marriage took place in 1839 and, from all accounts, was a happy union. The couple shared an interest in gardening, and in one of her letters Maria wrote to her husband about planting new shrubs along the walkway into the main complex at Millwood.

Calhoun, in a letter dated 1843, proudly announced to Maria that they now had a new structure for preserving ice—an ice house. Always eager to try something new, Calhoun possibly enjoyed cool drinks that summer with his wife while they talked about their various enterprises and dreams.

But by 1844, Maria Simkins was dead. By some reports, she died in childbirth. Her loss seems to have devastated Calhoun, who, according to local oral tradition, lost his religious faith and became a social recluse, the "Hermit of Millwood." Perhaps he regained some religious inclinations later in life because he apparently donated wood for an altar to an Abbeville church, but there seems little doubt that his wife's death hit Calhoun hard.

At the time of Maria's death, workers were either adding to the Calhouns' house or build-

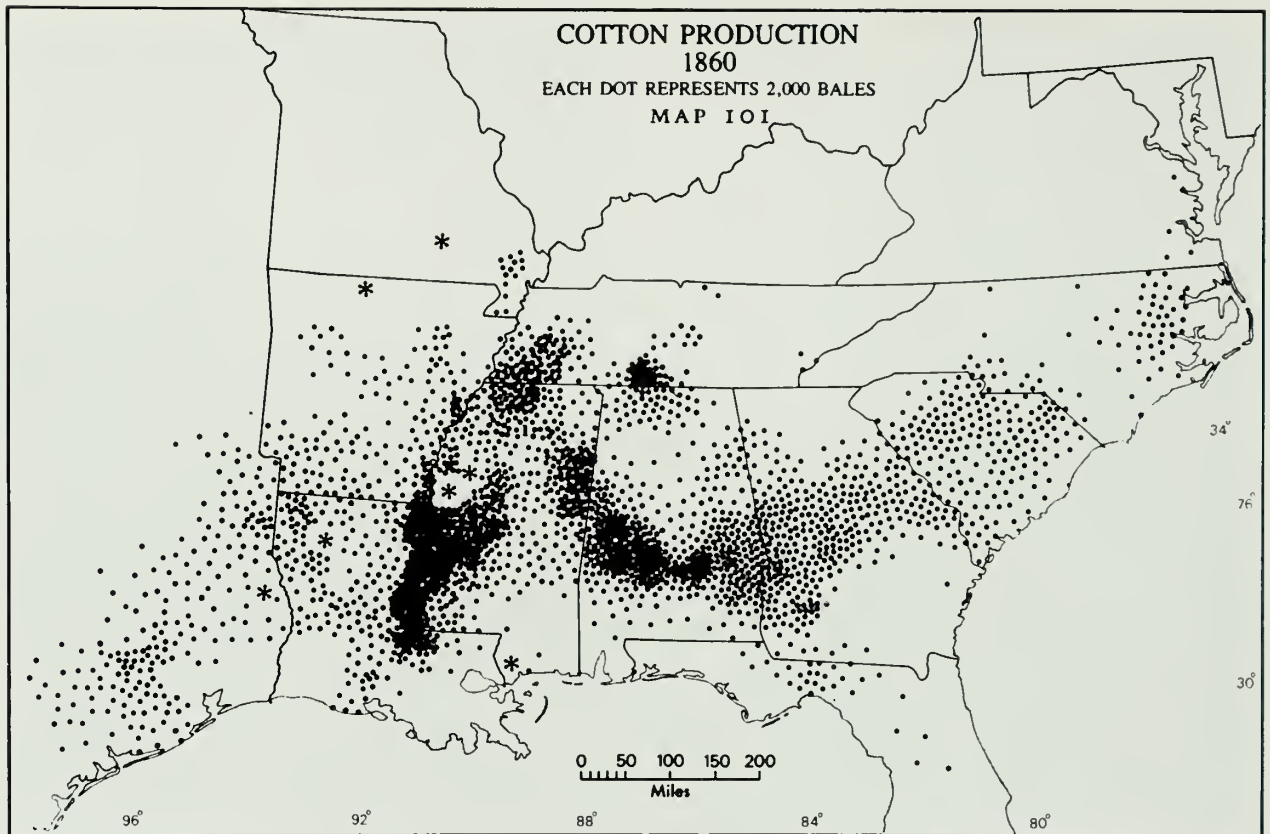
ing an entirely new one, the record is unclear. According to local lore, a distraught Calhoun boarded up forever a house he associated with his wife, either the house they had shared just before her death or a new one under construction.

Some say the house Calhoun was building for his wife was either shaped like a boat or had boat-like characteristics. Perhaps this was the house he abandoned, or possibly their original home resembled a boat and he left it forever. Another version of the story has Calhoun responding to his wife's death by sealing up their former residence, with the furniture still inside, and moving into another house built like a boat. That is the account described as the "boat-house myth" printed in a 1933 article of *The Abbeville Press and Banner*:

"The house in which he [Calhoun] and his wife had lived so happily, he had boarded up, declaring that no human being should ever enter it again. He built a house for himself which he patterned after a ship with port holes instead of windows high up; there was a balcony which ran around the wall beneath the



Figure 127: A blue, pearware platter rim was found in the Millwood excavations. Historic dinnerware, like prehistoric ceramics, is useful for dating the period of archeological sites.



Map 21: Georgia and South Carolina were no longer leaders in growing cotton by 1860 when the heaviest production had shifted west to Alabama, Mississippi, and Louisiana.

port holes; this was reached by a ladder which could be drawn up to the building after ascending it."

Russell Reservoir researchers found no direct evidence supporting the existence of the boat house and concluded that Calhoun probably lived throughout the pre-Civil-War era in a home built for an overseer—but the legend persists.

Archeologists did find what they thought were the remains of the original house Calhoun occupied at Millwood. They uncovered a rectangular foundation, and concluded that if this was indeed what was left of the infamous boat house, the residence wasn't shaped like a boat, after all. The possibility exists, however, that the interior had nautical decorations or that the upstairs in some form resembled a ship.

While excavating the site of what they thought was Calhoun's original house, researchers found part of the original brick floor

in what was once one of the two downstairs rooms. Over time, most of the floor had been removed, probably for use elsewhere. This house, once the focal point of power for a large plantation, was eventually abandoned and later used for storage, or, more probably, for trash disposal.

The boat house stories likely contributed to a reputation Calhoun developed as an eccentric. Energy others of his class often devoted to social activities with one another, Calhoun, after his wife's death, applied to Millwood. His experimenting continued and included trying to grow exotic plants and new varieties of more traditional crops. Calhoun planted oats, barley, red and white clover, rye, pecans, corn seed from Rhode Island, and "wild orange sprouts." He also tried growing various kinds of grain such as Haley, Malaga, New Holland, and Mexican wheat, as well as mulberries, peaches, grapevines, and holly. During most of his adult years, Calhoun also

cultivated different tea plants from around the world.

Millwood's riverside location gave Calhoun a distinct advantage over growers who were far removed from the water. Except when the river was dangerously low and Calhoun was forced to use land transportation, he could easily ship cotton and other crops down the Savannah. Those who lived near the river, especially those like Calhoun who owned their own boat-landing docks, negotiated with boat captains for the best rates to carry goods down the often treacherous river. The river captains made the trip on the same flat-bottomed boats identified with Petersburg. The boats were about 70 to 75 feet long and five to six feet wide, with shallow bottoms dipping below the water only 15 to 20 inches. A single keel boat could carry up to ten tons or 80 bales of cotton.

The boats carried cotton to Augusta at a cost of between 75 cents and one dollar per bale. The price rose during droughts when the river level dropped, making the journey more hazardous. As harvest neared, planters and farmers intending to ship their cotton by water must have kept one eye on the river. If the water dipped too low, the keel boats—propelled only by the river and boatmen with long poles—were stranded. They couldn't make it over the shoals.

Planters, who were able, often sent cotton to market by wagon in dry weather and by boat in wetter times. Whether a reliable crew was available to ship goods at the right time also influenced the method of transit growers chose. Calhoun eventually surmounted the problem of boat availability by owning his own fleet. Under the best of circumstances, however, travel down the Savannah could prove perilous. The U.S. Army Corps of Engineers surveyed the river in 1879 when conditions hadn't changed much since before

the Civil War. The surveyors found that obstacles were numerous and "not infrequently quite dangerous."

Initially, there was little cooperation between Georgia and South Carolina officials about clearing the river. Prodded by public complaints and a mutual desire to see commerce enhanced, the two governments finally acted after the War of 1812, and their efforts succeeded, briefly. A government report in 1824 stated that the river had been cleared for passage all the way from the northernmost part of the reservoir area to the Atlantic Ocean. But silt and debris soon clogged the river again, and state governments turned their hopes for better transportation to the railroads. Railroads, however, were insignificant in the area before the Civil War. Only a poorly-financed rail line, described as "flimsy," flanked the South Carolina side of the area, apparently too far away to have much impact. On the Georgia side of the river, some people used a railroad connecting Athens with Augusta, but again, for most, the line was too far away to be practical. Road travel also was often difficult, if not impossible, because of poor surface maintenance and mud.

The lack of good transportation probably contributed to the Piedmont's loss of dominance in the cotton industry. By the 1850's, land along the Mississippi River and in western Alabama had deposed Georgia and South Carolina as leaders in cotton production. By then, cotton growing was also expanding into eastern Texas, with some of the planters further west importing their slaves from the upper Savannah River region. Cotton and slaves remained important in the area near the Savannah River, but poor transportation and short-sighted farming methods had taken their toll. Stunted growth in potential markets also was destructive. Buyers turned cautious as a nervous nation stumbled toward another war.



Figure 128: An old postcard entitled, "Ploughing Cotton, Columbus, Ga.," captures the image of Black children and adults working in cotton fields. White overseers stand at the end of the rows.

Chapter 14: From Cradle to Grave

1783 to 1863

Cotton's reign exacted an inestimable human price with its dependence on the free labor of slaves, many of whom spent their entire lives in bondage and were physically abused. Without this forced toil—often carried out from sunrise to sunset with only the briefest respites—plantation owners likely would never have been so successful.

But owning slaves was by no means restricted to wealthy planters with thousands of acres. Even farmers with much less land were attracted to slavery and the dollars cotton could bring. Steadily, from 1810 to 1850, more and more farmers entered into slave holding in the four counties comprising the Russell Reservoir area, a situation repeated throughout the South.

Statistics, however, cannot explain what it meant to be a slave. For that, historians turned to observers' accounts from the period and reminiscences of former slaves and their offspring. Many of the statements, particularly about conditions in Elbert and Hart Counties in Georgia, were collected in the Federal Writer's Project of the Works Progress Administration between 1936 and 1938. While the descriptions reflect individual experience, they also provide impressions about a way of life imposed on thousands of others.

Benny Dillard's recollections about his mother were the only ones to trace all the way back to a slave's capture in Africa. He told how his mother's years of servitude began with a boat journey that took more than six months to reach the United States. Only about 16 years old at the time, she lost not only her freedom, but also her identity. A slave trader in Virginia gave her the single name of Nancy before she was transported to Georgia.

Charlie Hudson recalled watching wagon trains carrying slaves as they passed through

the area on their way from Virginia. Born a slave in 1858, Hudson further described an involuntary separation from his parents that was common for slaves. His mother lived on one Elbert County plantation and his father lived on another.

Work began for most slaves by age seven when they started to tote water to workers in the fields and pick up stones in the way of plows. Until then, children wore little clothing, only an old guano or corn meal bag or tow linen shirt and nothing else. By age 10 or 12, children stopped performing the lighter tasks and assumed adult work, although their output wasn't expected to be as great. Planters measured how much work a slave could do against the productivity of a healthy male hand, and children might be considered "quarter hands" under this gauge.

Slaves were grouped into three categories—field hands, house servants, and skilled craftsmen, such as blacksmiths, masons, and carpenters. Overlapping responsibilities were not uncommon, however, depending on the slaveowner's needs. The lowest rung was field hand and comprised the majority. Field hands included men, women, and children who worked side by side.

A field hand's duties depended on the seasons, and revolved around planting, cultivating, and harvesting crops. Farmers with only a few slaves often worked along with them in the fields, while wealthier planters tended to organize labor into gangs with an overseer or slave driver in control. The overseer's responsibility was to force maximum effort out of everyone. Demanding that a field hand pick 300 pounds of cotton in a single day was not unusual, and any who failed were subject to lashing with a whip on many plantations and farms.



Figure 129: The blacksmith was considered a skilled craftsman and therefore more valuable as a slave than field hands, which included women and young children.

In fact, cruelty and physical punishment were common for any number of infractions, according to Austin Steward, a slave for 22 years: "I must first say that it is not true that slaveowners are respected for kindness to their slaves. The more tyrannical a master is, the more will he be favorably regarded by his neighboring planters; and from the day that he acquires the reputation of a kind and indulgent master, he is looked upon with suspicion, and sometimes hatred, and his slaves are watched more closely than before."

Field hands weren't the only ones subject to abuse. Steward recalled house servants suffering at the hands of the mistress, whom he described as a "great scold" : "...continually finding fault with some of the servants, and frequently punishing the young slaves herself, by striking them over the head with a heavy

iron key, until the blood ran; or else whipping them with a cowhide, which she always kept by her side....The older servants she would cause to be punished by having them severely whipped by a man, which she never failed to do for every trifling fault."

While conditions varied for slaves, depending on their owners' dispositions, harsh punishment was widely accepted. James Edward Calhoun revealed in a letter soon after he moved to Millwood his own tactics for slave control: "Day before yesterday, one of the negroes lodged complaint against Abbeville William, who took himself off, apprehensive of a flogging. Have a good lookout kept for the rascal, & if you can catch him give him, in the first place, as soon as he can be tied, 100 lashes & then have him put in jail."

Calhoun continued by advising that the



Figure 130: Black women at Millwood Plantation washed clothes in steaming kettles and wood barrels in 1875, similar to how James Edward Calhoun's slaves worked.

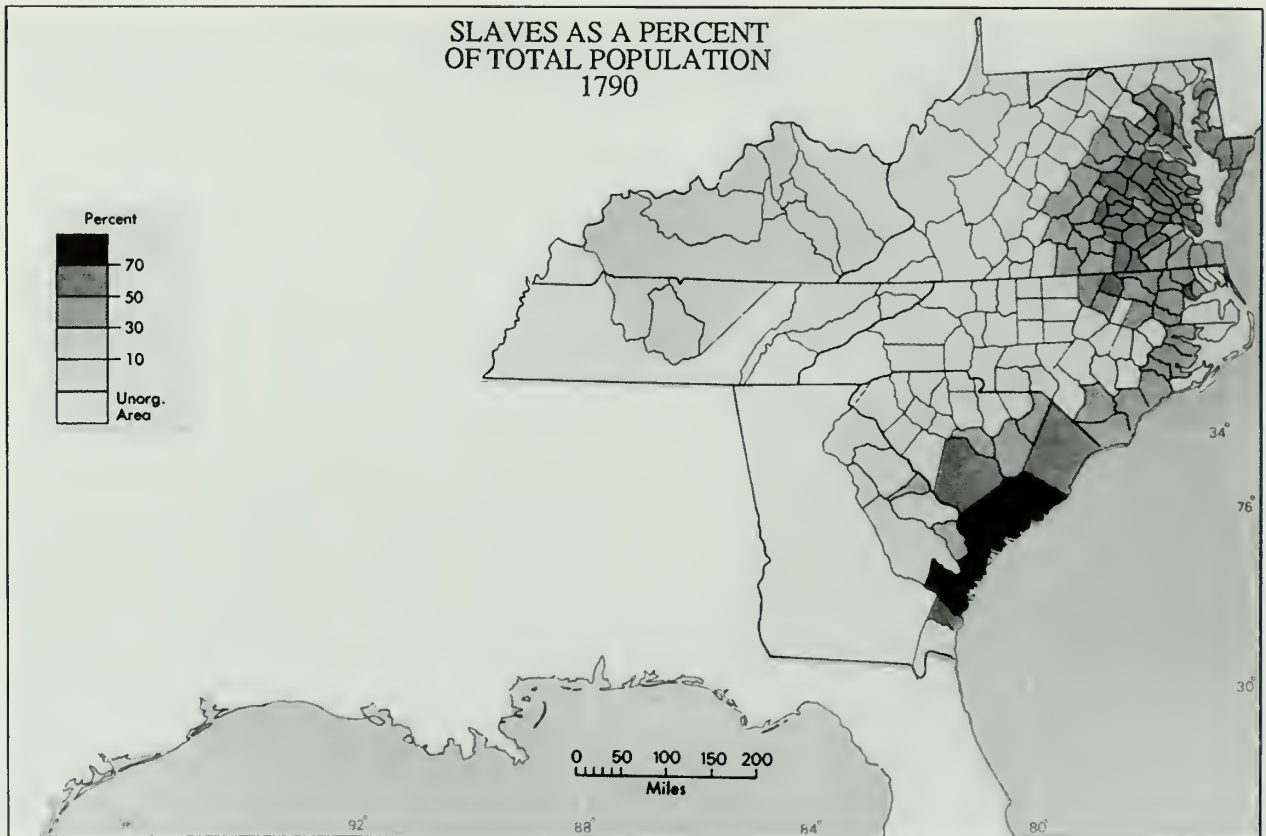
slave should then be sold for \$700 or \$650, "always cash in hand." However, he also reserved the option of punishing the slave himself, "as an example."

Slaves depended on masters for even the most basic needs—food, clothing, and shelter. Adequately meeting those requirements to protect his investment was in the slaveholder's best interest. But he also had a competing objective of keeping costs low. Most resolved the conflict by providing the least subsistence possible, housing slaves in flimsy structures the servants were forced to build for themselves, clothing them in the cheapest fabrics slave women were often required to sew, and feeding them small amounts of the poorest food which was rationed by the day or week.

Most Southern slave dwellings, including those in the reservoir boundaries, were small. These houses consisted of single or double

rooms built of logs, which were commonly available on the plantation because trees needed to be cleared to make way for fields. Also, log houses required the least effort to build, which was important because field labor therefore wasn't lost for long. Some plantation owners also wanted to keep slave housing insubstantial because they planned eventually to move slaves to other cabins, close to newly-cleared fields.

Frederick Law Olmsted, designer of Central Park in New York City, traveled through the South in 1853 and 1854, and wrote about slave cabins he saw in South Carolina: "It was a very large plantation, and all the buildings were substantial and commodious, except the negro-cabins, which were the smallest I had seen—I thought not more than twelve feet square interiorly. They stood in two rows, with a wide street between them. They were



Map 22: Early in the nation's history, slaves comprised 70 percent of the population along the Georgia and South Carolina coasts.

built of logs, with no windows—no opening at all, except the doorway, with no trees about them, or porches, or shades of any kind."

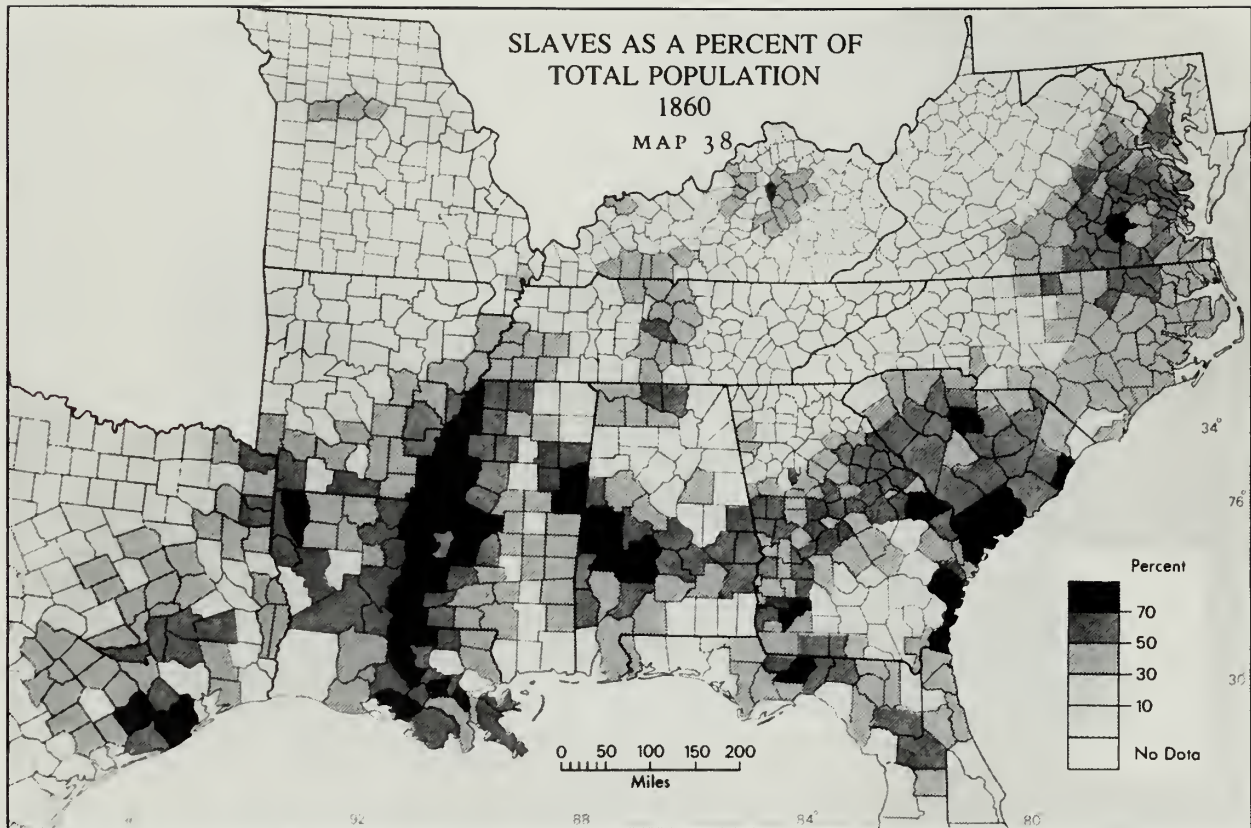
Carrie Hudson, a slave on Joseph (Squire) Rucker's plantation in Elbert County, explained that slave children usually slept on floor pallets. Adults used a bed made of poles nailed into the wall and floor. The bed was fitted with crosswise planks and a coarse cloth tick filled with wheat straw for the mattress.

The content, quality, and preparation of meals differed from place to place. Sometimes older workers, no longer useful in the fields, were designated to do communal cooking. Slaves elsewhere were fed similarly in groups, but were individually responsible for preparing their own evening meals, which they cooked in mud and stick fireplaces that also provided heat in their cabins. Fatty salt pork and corn meal were the normal food. Occasionally slaves supplemented their regular stipend with

game they hunted and fresh vegetables some were allowed to grow after their workdays ended.

Charlie Hudson fared a little better, possibly because his mother was the master's cook and had access to other food, including milk and butter. Among his better memories was opossum she baked with butter. Hudson also ate a dish first devised by the Indians, lye hominy from corn.

But Austin Steward remembered leaner times: "The slaves on our plantation were provided with very little meat. In addition to the peck of corn or meal, they were allowed a little salt and a few herrings. If they wished for more, they were obliged to earn it by over-work. They were permitted to cultivate small gardens, and were thereby enabled to provide themselves with trifling conveniences. But these gardens were only allowed to some of the more industrious."



Map 23: By the start of the Civil War in 1860, slavery had spread heavily throughout the South. Black majorities were now commonplace in the entire region.

Meals during field chores were often prepared by slave cooks, then carried out to the workers so there was little disruption of their labor. Despite their strenuous work, the food field hands were served was meager, remembered Steward: "All the field hands were required to give into the hands of the cook a certain portion of their weekly allowance, either in dough or meal, which was prepared in the following manner. The cook made a hot fire and rolled up each person's portion in some cabbage leaves, when they could be obtained, and placed it in a hole in the ashes, carefully covered with the same, where it remained until done. Bread baked in this way is very sweet and good. But then cabbage leaves could not always be obtained. When this was the case, the bread was little better than a mixture of dough and ashes, which was not very palatable."

Their clothes were often equally substan-

dard and quickly showed the effects of their wearers' toil. Olmsted described how women field hands were dressed: "...coarse gray gowns, generally very much burned and dirty; which, for greater convenience of working in the mud, were reefed up with a cord drawn tightly about the body, a little above the hips—the spare amount of skirt bagging out between this and the waist proper. On their legs were loose leggins or pieces of blanket or bagging wrapped about, and lashed with thongs; and they wore very heavy shoes. Most of them had handkerchiefs, only, tied around their heads; some wore men's caps, or old slouched hats, and several were bareheaded."

A year's allotment of ready-made clothing for men and materials for women to make their own were detailed by a South Carolina planter: "Each man gets in the fall two shirts of cotton drilling, a pair of woolen pants and a woolen jacket. In the spring, two shirts of



Figure 131: Farm buildings associated with a woman's chores, such as this wellhouse, were closer to the house, while buildings used mostly by men were farther away.

cotton shirting and two pr. of cotton pants....Each woman gets in the fall six yds. of woolen cloth, six yds. of cotton drilling and needle, skein of thread and one-half dozen buttons. In the spring six yds. of cotton shirting and six yds. of cotton cloth similar to that for men's pants, needle, thread, and buttons. Each worker gets a stout pr. of shoes each fall, and a heavy blanket every third year."

As their title implied, slaves existed solely to do the work of masters, but for luckier ones there were moments of pleasure derived from the company of other slaves and during the festivities some slaveholders occasionally allowed. Most field hands worked six days a week with Sundays off for rest and religious services generally encouraged by masters.

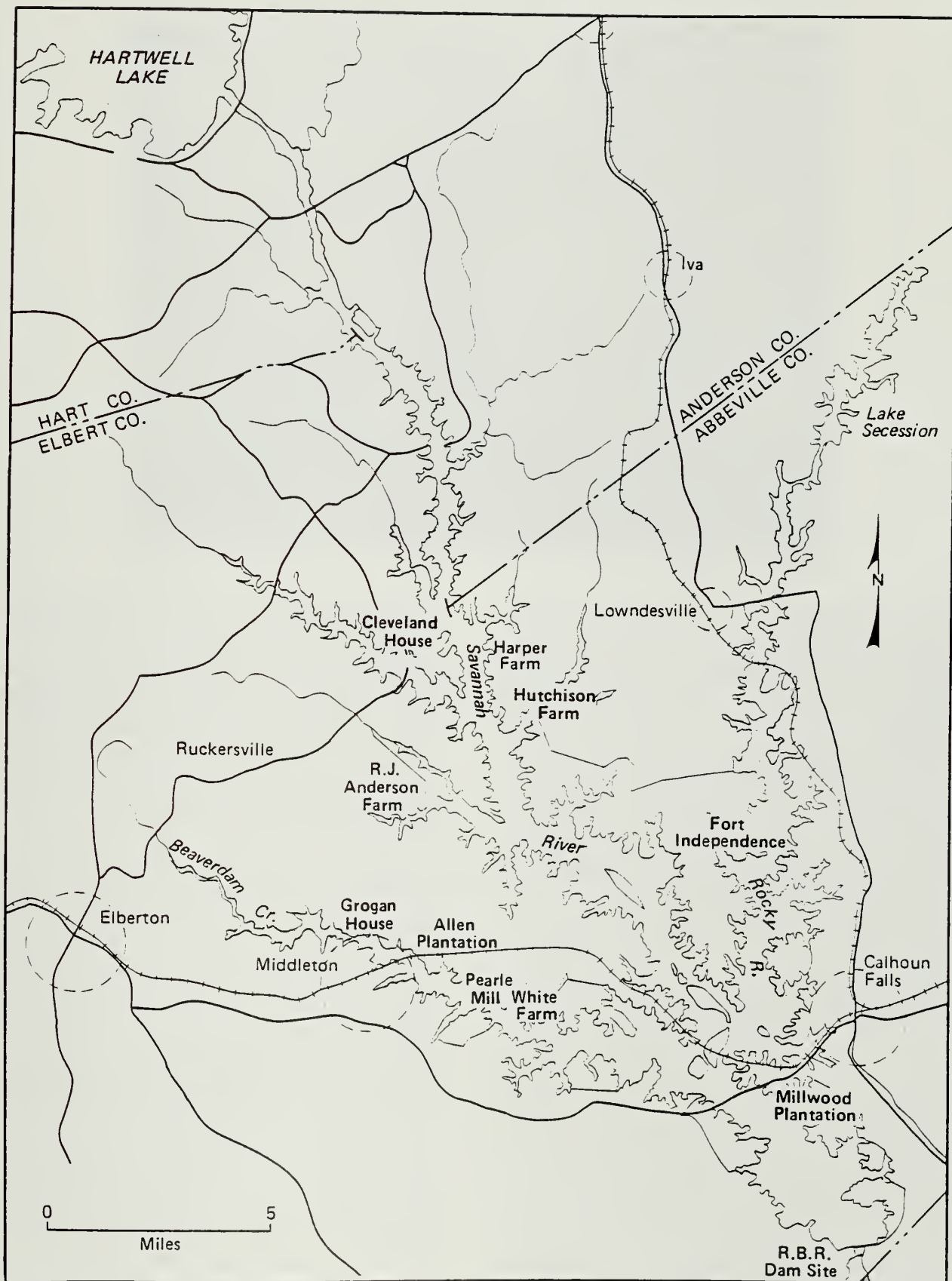
Carrie Hudson recalled when slaves returned from the fields at night how they wanted only to rest. But Saturday nights were special because they were permitted to dance and play the banjo. Christmas, however, was the treasured time for children because, "...there would be plenty of fresh meat, and there was heaps of good chickens, turkeys,

cake, candies, and just everything good."

Slaves celebrated the holiday by visiting one another's cabins, but when New Year's Day arrived they returned to work. Other pleasurable activities Carrie Hudson recounted were corn shuckings and cotton picking by torch light on fall nights, after which slaves were permitted to dance and eat well. Log rollings were her favorite, however, and again were marked by music, food, and also whiskey in kegs. Her master organized and provisioned those events, and gave a prize to the hand who picked the most cotton.

In cold months, when there was less field work, slaves sometimes were allowed to arrange for themselves quilting parties with sewing, food, and drink.

While these few indulgences may have eased their lot somewhat, the fact remained that slaves were prisoners in a labor camp. Most were rarely allowed to leave their masters' land, but if they were granted permission they were often required to carry passes attesting to their owners' intentions allowing them to go. These permits could be demanded by



Map 24: Important historic sites studied included plantations and farms.



Figure 132: The William Allen House on Beverly Plantation in Elbert County is considered plantation plain style.

groups of White enforcers, called the "Patrol", that existed throughout the South. The Patrol tried to prevent slave escape and rebellion, and punished those caught with whippings and hangings.

Slaves eventually outnumbered Whites, who compensated for the difference by any method of subjugation they considered useful. As Austin Steward explained: "No slave could possibly escape being punished—I care not how attentive they might be, nor how industrious—punished they must be, and punished they certainly were."

Slave supervision was integral to the way buildings were arranged on plantations. Merle Prunty described this arrangement as "nucleated", meaning most buildings were grouped together. The planter's residence, slave cabins arranged in rows along short roads, and service buildings, such as barns and sheds, were all clustered close to each other. Based on a Georgia rice plantation near the coast, this picture of plantation life applied to some landholdings in the Russell area, but there were also deviations dictated by the differences in raising rice and cotton.

Researcher Marlessa Gray designated two more settlement patterns in the reservoir area besides the nucleated one. The semi-nucleated form resembled the nucleated, but buildings were further apart. The conglomerate pattern divided buildings into several clusters, grouped by activities. Sometimes these individual clusters were a considerable distance apart.

Researchers found the conglomerate pattern the most representative of the region's large plantations because of cotton's rapid exhaustion of the soil. On a regular basis, new fields had to be cleared and planted, and these fields were sometimes not contiguous to the original settlement. As a result, more service buildings, and sometimes slave and overseer dwellings, were built in satellite communities close to the new fields. Occasionally, even the planter's residence was shifted closer to new fields to let him supervise more easily. In contrast, rice fields, kept fertile by frequent immersion in nutrient-rich water, were continuously reused, as were nearby buildings.

The shift to a conglomerate pattern usually occurred on plantations after three to five



Figure 133: The exterior end chimneys and front porch of the Allen House are features of the plantation plain style.

years when the soil was depleted and new fields were needed. James Edward Calhoun made such a change when he gradually expanded his Midway Plantation holdings, then established slaves and an overseer on his new plantation, called Millwood. Ultimately, he moved to the new location himself.

But owners of fewer slaves and smaller plantations, as well as farmers, couldn't always afford to buy more land and workers. Their settlements tended to follow nucleated or semi-nucleated patterns.

Historian Linda Worthy also distinguished another difference between planters and farmers. Planters—those with 20 or more slaves—were concerned with controlling many slaves and that often determined where they placed buildings. Farmers were more likely to arrange structures according to whether chores associated with them concerned the house or the field. Chores, and therefore the buildings associated with them, were also traditionally identified with women or men. For example, household jobs usually performed by women included tending chickens and preparing food, so the chicken house and smokehouse were put

close to the residence. Men, on the other hand, usually performed the field tasks of caring for the ox and mule, and storing cotton and corn. Consequently, buildings for those functions—the barn, cotton shed, and corn crib—were farther from the house and closer to the fields.

As for local architecture, there were few of the columned mansions many associate with the South. The great majority lived in simple wood houses, including many land-rich planters such as Calhoun. Even though many antebellum dwellings were gone by the time researchers arrived, enough remained to confirm the accuracy of the observations of an anonymous writer in 1859.

The writer noted a "uniformity of design" in all country houses in Georgia and South Carolina, and divided them into four categories: "...The little log cabin, with a single room and a clay chimney. This represents the lowest class. Two log pens (rooms), and two back shed rooms, with a passage through the center and piazza in front; clay chimney at each end of the house. This is the second in the ascending scale. Two story house, built of

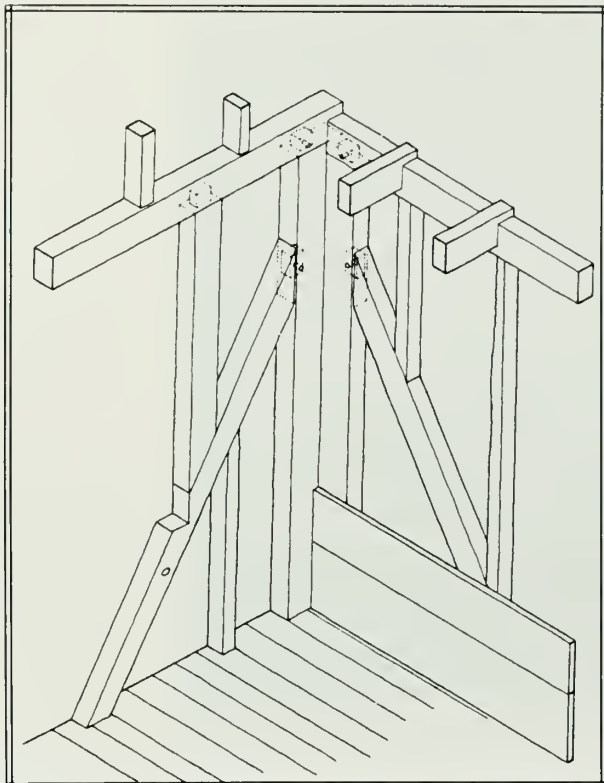


Figure 134: Mortise-and-tenon joints.



Figure 135: Dove-tail notches.

pine boards, with four rooms in the body of the house, and two shed rooms behind; brick chimney at each end, piazza in front, and passage through the center. This is the third class—men who are getting 'well-to-do in the world.'

"Large two story double house, eight rooms, chimney running up through the roof, giving a fireplace to each room; piazza or portico in front, and passage through the center. This completes the series, and here we find the lordly planter, with all the appointments of comfortable and stylish living."

The dwelling in the Russell Reservoir area closest to the popular conception of elegant antebellum homes was the William Allen House on the Beverly Plantation. Located in Elbert County, this sizable two-story structure, with front columns and double chimneys, was identified by an architectural historian as plantation plain style. The characteristics of this design, popular in the South in the early 1800's, were frame construction, two stories, gable roofs, and exterior end chimneys. Two rooms of unequal size were located on both floors, and there were additional shed rooms in the rear and a porch across the front.

Usually unpainted and raised on a rock foundation, a plantation plain style house had plastered interior walls or flush siding with chair rails. The houses incorporated much hand-crafted woodwork, which would soon largely die out as a craft in America because of the industrial revolution. Such a residence effectively separated the wealthy planter from outsiders through boundaries created by its porches, hallways, and distinctions between private and public rooms. Archeologist J. W. Joseph noted that these barriers were useful to protect the planter from the uncertain intentions of diverse callers and to demonstrate his wealth and high social standing.

On the other end of the economic scale were poor Whites who often occupied log shelters little better, if at all, than those lived in by slaves. Often only one or two rooms, these dwellings offered none of the isolated



Figure 136: A back view shows the Caldwell-Hutchison House.



Figure 137: Katherine and Bandon Hutchison, sister and brother, stand with their dogs outside their historical family home in Abbeville, South Carolina.



Figure 138: The breezeway or dogtrot of the Caldwell-Hutchison House provided a refreshing, cool spot on hot days.

retreats that a planter might have in his home. As Frederick Law Olmsted observed: "The logs are usually hewn but little; and, of course, as they are laid up, there will be wide interstices between them—which are increased by subsequent shrinking. These, very commonly, are not 'chinked', or filled up in any way; nor is the wall lined on the inside...." In other words, the walls and roof sometimes barely kept out the rain.

Farmers, who were in between the richest and poorest categories, rarely included barriers to outsiders in their homes, either. As Joseph explained: "Farmers were likely to have interacted with other farmers, and with the few slaves they might own. If slaveowners, then they probably worked together with their slaves in the field and were familiar with one another. Farmers had no reason to build houses which excluded them from the outside world, because the outside world was not a threat."

The Caldwell-Hutchison House was a typical residence for such farmers, who often did not work from building plans, but merely

extended their houses as needed. The house began as only one room of hewn logs joined with half dovetailed notching. As the family grew, two rooms were added, with a dogtrot or breezeway in between to cool the place in hot weather. Eventually, the residents added a second story. Another dwelling, the Alexander-Cleveland house, began as two stories with frame construction and mortise-and-tenon joints. It was later enlarged to include a rear single-storied kitchen. The house style is considered Carolina I because of the rear addition and a single-story front porch.

All three examples from the area, the Alexander-Cleveland, Caldwell-Hutchison, and William Allen houses, were occupied long after the Civil War. In fact, a brother and sister, Bandon and Katherine Hutchison, resided in their family home until they were relocated to make way for the Richard B. Russell Dam and Lake. So, even though area people mostly favored simple constructions, they often built their homes to last, and last they did, in some cases for well over 100 years.



Figure 139: Mary Catherine and Robert Cleveland posed in front of their 18th-century house in Elbert County, Georgia.



Figure 140: An upstairs room of the Alexander-Cleveland House served as a school for the family's and neighbor's children until 1901.



Figure 141: William Thomas Bailey and his brother Henry M. Bailey of Hart County, Company C, 16th Regiment, Georgia Volunteer Infantry, stood at attention in their uniforms during the Civil War.

Chapter 15: Fortunes Won and Lost

1861 to 1865

Although the skirmishes of the Civil War never took place near the upper Savannah River, probably no family, Black or White, was untouched by the conflict in some way. Certainly most people knew a man, or even a boy, injured or killed in the war, and few could ignore the many rumors about battles won and lost on both sides, not when their own futures could be determined by the outcomes.

Whites in particular must have grown especially apprehensive as news came of a fiery march through Georgia led by Union General William Tecumseh Sherman. They must have learned that he burned Atlanta, and that he was headed for Savannah. But once there, Sherman didn't set the city ablaze as many feared because residents surrendered without a fight and gave the general one of the finest homes as his headquarters.

Abbeville, South Carolina, which for so long had served as the home of John C. Calhoun and the place where he practiced law, was an early hotbed of the secessionist movement; and when the war that resulted from the movement was close to the end, Abbeville was also where the president of the Confederacy, Jefferson Davis, held the last meeting of his cabinet, his last council of war before surrendering. Their gathering in the Burt-Stark Mansion May 2, 1865, prompted citizens to call their town "the birthplace and the deathbed of the Confederacy."

Some of the reservoir area's earliest and most powerful families were directly affected by the war. Among them were the Hutchisons. Robert Hutchison was the son of one of the first pioneer families to settle on the South Carolina side of the Savannah River. He became one of the richest men in the region, rivaling James Edward Calhoun in his proper-

ty holdings, and earning a place of leadership in the community. Hutchison was so financially successful that he often made loans to others and became known by the nickname of "everybody's banker."

One of his sons, Robert Barney Hutchison, joined the Confederate Army early in the war. He served with General Robert E. Lee's Army of Northern Virginia during its first foray into Northern territory in late 1862, making him part of a powerful Rebel force that had stirred some in the United States government into a panic. Lee's army seemed almost invincible then, until a Union soldier commanded by General John B. McClellan found the enemy's battle plans wrapped around several cigars. That stroke of luck prompted McClellan to become uncharacteristically bold and aggressive, and the tide of history changed.

Hutchison fought in the decisive engagement at Antietam in Maryland, also called the battle of Sharpsburg. There, Union soldiers finally halted the Confederate advance, and General Lee and his forces were forced to retreat south into Virginia. Hutchison was so badly wounded in the fight that he lost a leg. When he returned home, he and his wife moved to Anderson County, South Carolina, for a time, but they returned in the 1870's to the area where his father lived near Lowndesville, South Carolina. The couple settled into a log house, later to be listed on the National Register of Historic Places.

Another family rocked by the Civil War was the Harpers. Their family chronicle in the region began when Henry Harper settled in Edinburg, Georgia, in 1792, where he operated one of the first local river ferries. In 1808, his son, Lyndsey, perhaps bettered his own fortunes through marriage. Apparently, not long after his wedding to Jane (Jenny) Harris,



Figure 142: The Harpers were early settlers in Georgia and later in South Carolina. This is a front view of their house in Abbeville County, South Carolina.

daughter of a prominent doctor, Lyndsey moved into her family home or built a house on the Harris property. Documents don't show whether Lyndsey bought or inherited the land where he and Jenny lived, but whichever was the case, people thought of their Abbeville County residence as fairly opulent.

Possible evidence that the newlyweds settled at the bride's home came from the inscription on her 1853 tombstone. Located in the graveyard of the Lyndsey Harper Plantation, the tombstone reads, "She was born, lived, and died within 300 yards of her grave."

Historians tracing the lives of selected reservoir area families often consulted government documents and legal records in their search for information. Census counts, wills, tax records, deeds, itemizations of estates, all were useful. For example, the 1810 census showed that Lyndsey Harper's father owned no slaves, and that Lyndsey, just married, owned one. By the 1820 census, Lyndsey owned eight slaves and employed four other free Blacks. Lyndsey's wealth remained about the same until between 1840 and 1850 when his wealth increased significantly and he came close to being part of the plantation class.

Lyndsey Harper's wealth was documented

at his death in 1850 when his estate was listed in public records. At that time, he owned at least 1,304 acres of land and 19 slaves. Three of the slaves were valued at only one dollar apiece because they were old.

One way Lyndsey Harper had expanded his income was by lending money. His estate papers showed that many people were indebted to him. There were several pages listing notes due, some dating back to 1831, with debtors' names, dates and amounts of every loan, and comments whether prospects of repayment were good, bad, or doubtful. Before his death, Harper also made several payments himself to people listed as "landlord" and "landlady". He apparently owned property in Augusta and Elberton, Georgia, and was paying people to manage it.

Jenny Harper died within three years of her husband, and the estate was divided among six children and grandchildren. A son, Henry, described as about six-feet tall with dark hair and a dark complexion, assumed ownership of the family farm. By 1856, Henry Harper's tax returns show that he had achieved a status his father never quite reached. As the owner of more than 20 slaves, Henry Harper had joined the ranks of the planter class. His assets continued to grow until by 1860, he owned 42

slaves housed in seven dwellings. He also claimed 1,400 acres of land, 400 of which were being farmed. Befitting his elevated social stature, he was elected to the state legislature. From all accounts, Henry Harper had become a rich and influential man with the brightest prospects. Then he went to war.

Shortly after the firing of the first shots at Fort Sumter in Charleston Harbor April 12, 1861, he enlisted in the Confederate Army and was sworn in as a captain. Stationed in the Beaufort District of South Carolina until the summer of 1862, Harper apparently didn't see any action early in the war.

This was a heady time for the Confederates. One of their generals, Thomas "Stonewall" Jackson, and his army seemed to move with the speed of lightning, mounting surprise attacks that stunned their enemies. An especially notable achievement came in the Shenandoah Valley campaign where Jackson's troops held two separate Union armies at bay, and succeeded in sending them simultaneously into retreat. When Jackson rejoined Lee, the two generals and their troops continued either to win battles or, at the very least, to block their opponents from capturing Richmond, Virginia, capitol of the Confederacy. For the time being, the Rebels appeared to have every reason to feel cocky.

During this peak in the South's fortunes,

Henry Harper obtained a leave of absence from the army and in the summer of 1862 headed home. Either on the journey or once he reached his destination, he suffered some sort of injury that kept him away from the army, apparently for about a year. By September 1863, he had recovered enough to return to active duty and was promoted to major. He joined Lee's army and was in Virginia when the outlook for the Confederacy blackened. By 1864, the days were clearly past when Confederate General James "Jeb" Stuart's cavalry could ride with impunity around the Union Army. Gone, too, was General Jackson, the man Lee had called his right arm and who had stood like a stone wall against the enemy, inspiring so many Confederates. Jackson died at the hands of his own men, victim of wounds suffered in an accidental shooting. In May 1864, casualties on both sides reached staggering proportions. Armies under the command of Union General Ulysses S. Grant and Confederate General Robert E. Lee fought, often hand-to-hand, in such places as Spotsylvania and the Wilderness in Virginia. In just a month or so, Grant lost about 60,000 men, while Lee lost 30,000. Yet, despite his greater casualties, Grant had an important advantage over Lee. He continued to receive replacements for lost soldiers, while Lee and the entire Confederate Army were short of



Figure 143: Fort Sumter, South Carolina, in Charleston Harbor, was the site where the first shots of the Civil War were fired on April 12, 1861.



Figure 144: Georgia's First Regiment, Company D, gathered in Augusta, Georgia, early in the war.

men, short of everything. Lee's once proud force was now in tatters. Some men fought barefoot.

Somewhere in all this horrific bloodshed Henry Harper managed to stay alive. Little is known about exactly where he served during the period, however, it's certain that he was eventually captured by the enemy. Apprehended by the Union Army July 28, 1864, at Malvern Hill—about halfway between Cold Harbor and Petersburg, Virginia—Harper was taken to the Old Capitol Prison in Washington D.C. Later, he was transferred to the Federal Prison at Fort Delaware. Almost a year to the day after his capture, he was released, on July 24, 1865. As the price of his freedom, he signed an oath of allegiance to the United States government.

Harper emerged from the war with most of his real estate intact, although greatly devalued. Before the war, he owned 1,400 acres, which had diminished to 1,100 acres in 1865.

While his land before the war was valued at \$21,000, the figure had dropped to only \$8,800 afterwards. The economic depression that had hit the South clearly impacted him. Still, Harper managed mostly to maintain his economic worth through 1870. According to the agricultural schedule of the Federal Census for 1870, he grew quantities of corn, oats, wheat, and cotton worth \$5,100.

Shortly after Reconstruction ended, Harper won election to the South Carolina House of Representatives, where he had served before the war. He held office for two years until 1880, when for some unknown reasons his fortunes shifted steeply downward. In the 1880 agricultural schedule, Harper's land value had skidded from \$8,000 to \$2,600, and his agricultural production plummeted from \$5,100 to \$700. He had lost 600 acres.

Henry Harper died in 1886, followed five years later by his wife. Researchers found no will for either of them, but it appears that they

left what remained of the plantation to their four surviving children.

The Harpers became well known for the ferry they owned on the Savannah River, just as their grandfather had owned a ferry in the late 1700's. But the second ferry, which began service around 1836, operated in a different location than the grandfather's. This second Harper's ferry continued operation until 1928 when automobile bridges eliminated its need.

Traveling back and forth across the river by ferry became commonplace for residents on both sides. James Edward Calhoun eventually owned his own ferry so he could more easily tend to his interests on each bank of the river. Most others, however, depended on entrepreneurs like the Harpers, who charged small fees for the service. Owners named their ferries after themselves, and in the study area, there were the Mosley, Bowman, Dooley, and Tucker Ferries. The latter boat belonged to Dan Tucker, a colorful Elbert County farmer originally from Virginia.

Tucker, born February 14, 1740, was also a minister, and perhaps in that capacity befriended slaves, who created a song about him that persists to this day. Meaning behind the curious lyrics of "Old Dan Tucker" however, has been lost. Nonetheless, the folk song remains a campfire favorite:

"Old Dan Tucker was a grand old man
He washed his face in a frying pan
He combed his hair with a wagon wheel
He died with a toothache in his heel."

The song includes many more verses, although exactly how many remains unclear because new ones continue to be added.

In a sense, the Civil War handed a crueler fate to the McCalla family than to their neighbors, the Harpers. By 1820, John McCalla, who was called "Major", possibly because of military service in the War of 1812, was already a plantation owner. He had 26 slaves. By 1833, he owned 768 acres between the Savannah and Rocky Rivers.

A property inventory at McCalla's death in



Figure 145: J. D. and Grace Rucker and a group of friends crossed the Savannah River by ferry from Elbert County, Georgia. Ferries were vital to early life near the river.

1839, excluding land, revealed a value of about \$16,000. About \$9,000 of his estate's value was in slaves. Some of McCalla's slaves were valued as high as \$900 each, and all of them were listed by their first names only: "Biddy, Patty, Rachel, Herrod, Tom, Winny, Fanny, Jim Strong, Zack, Mary, Betty, Dely, Milly, Carolina, Henry, Charles, Alek, and Jim H."

Apparently well educated, McCalla left behind a library appraised at \$150, a bookcase, and a copy of George Washington's farewell address valued at \$20, along with other items. Taxes filed on behalf of his estate indicated payment of \$6.50 to neighbor James

Edward Calhoun for the "spring season of a horse." Calhoun, always on the lookout for a way to make money, must have offered his stallion as a stud.

Like Calhoun, John McCalla managed various business pursuits—blacksmithing, carpentry, cloth manufacturing, and possibly timbering. With his death, several small bequests went to missionary societies, while the bulk of his wealth was divided evenly between two sons. George, the youngest, bought his brother's share in the family plantation so that by 1850 he owned it all.

George McCalla's wealth grew phenomenally in the decade before the Civil War. He owned 1,760 acres in 1856, which had almost doubled by 1860 to 3,000 acres. The number of slaves he owned also grew, from 74 in 1856 to 85 in 1860. How he improved his fortune so much is unclear. Additional inheritances perhaps brought in part of the money, and he may have been especially frugal with profits from agriculture, which were good for the time. He may have also driven his slaves especially hard or managed them very efficiently. Archeologist J.W. Joseph determined that McCalla apparently produced 1.85 bales of cotton per slave in 1850, compared to one bale per slave for Henry Harper. James E. Calhoun produced even less, only about a third of a bale per slave.

Archeologist Marlessa Gray noted a possible dark side to McCalla's rapid accumulation of wealth—he apparently didn't pay his fair share of property taxes. In 1856, he paid only \$56 tax on 1,760 acres, while Henry Harper paid \$75 on less land, just 726 acres. A nearby farmer, William F. Clinkscales, who owned only 450 acres, also forked over more taxes than McCalla—\$64.

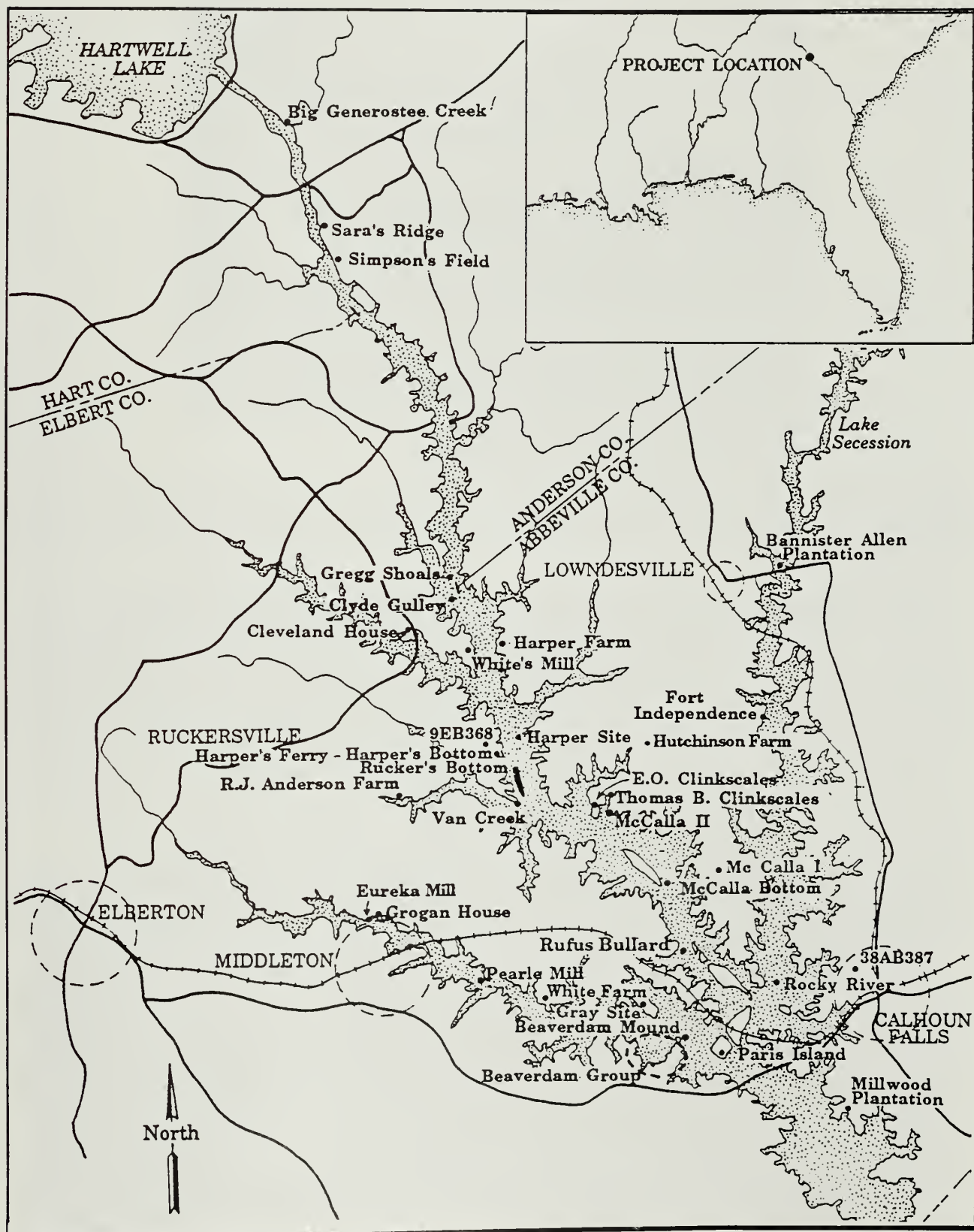
McCalla's prosperity plummeted after the war, possibly because he went into debt to finance his expansion in the years immediately prior to the conflict. Perhaps he felt impelled to borrow money because so much of his wealth was tied up in slaves, an investment entirely lost following the South's defeat when

Hanging On

William Franklin Clinkscales represents the middle-income farmers, a category that remained very important to the study area's economy until modern times.

The Clinkscales settled on the South Carolina side of the Savannah River in the early 1850's, buying 450 acres. At the time, they owned eight slaves who lived in two houses. After his first wife died, William Franklin remarried in 1844 to Lucinda Burton, with whom he spent 62 years. They raised the two children from his first marriage, as well as a number of their own—with at least six of their offspring living past childhood.

By the start of the Civil War, the Clinkscales' land was apparently worth \$6,300. Despite the hardships of the war, William Franklin Clinkscales was able to survive with his assets largely intact. By 1870, the Clinkscales' property value had been cut by half, but the family was able to withstand the economic depression by diversifying farm production. They raised horses, mules, milk cows, other cattle, oxen, sheep, pigs, bees, and chickens. They also grew corn, oats, wheat, cotton, Irish potatoes, sweet potatoes, apples, and peaches. Just about all their livestock and produce were for their own use, although they sold cotton, possibly butter and eggs, and wood they cut on their land.



Map 25: The historic farms and plantations studied in the Russell Project Area are shown, along with the prehistoric sites examined.



Figure 146: The Clinkscales house in Abbeville County, South Carolina, was at the center of happy memories for many family members.

slaves were freed. Also, plunging land values throughout the region after the war further diminished his principal assets.

According to his 1865 tax return, McCalla's property had decreased in value from \$31,000 to \$15,000. The figure continued to drop until, by the time of his death in 1886, his land's value had sunk to \$10,790 and his personal property was appraised at just \$76. McCalla was also deeply in debt.

Despite these losses, he somehow managed to hold onto his land until his death. His estate, including small amounts of money and personal items, was divided among seven children, grandchildren born to a daughter then dead, and his wife Mary Jane, who had married him when she was 16 and he was 28.

Of all the people researched in the Russell studies, James Edward Calhoun's economic profile was one of the more difficult to track because of his many ventures, and because he owned land in two states and several counties. That said, it appears that Calhoun continued to feel financially pinched into the 1830's, despite his vast holdings, because, in part, he didn't have enough slaves to handle all the jobs he wanted accomplished. Letters suggest that he was constantly juggling slaves between his agricultural and industrial concerns. At one

point in 1833, he wrote that he had delayed planting corn because of construction work at a mill. In the same year, he wrote that his workers didn't finish picking cotton until December 30 because of other jobs.

One way Calhoun got around his labor shortage was to rent out some of his vast acreage. Sometimes he collected money in return; other times, he took pay in crops. For instance, in 1833 he rented land to a former overseer for which he was to receive shares of the man's crops—one fourth of the corn, one third of the cotton, and half the oats.

Between 1830 and 1840, Calhoun either had enough credit or made enough profit to boost his slave holdings dramatically. In ten years, he went from owning 55 slaves to 155. By 1860, the number had jumped to 194.

Calhoun also spent the pre-war years pursuing his goal of an industrial complex on his plantation that could convert his various crops into finished goods, but the extent of his success is hard to determine. For example, he contemplated building a manufacturing facility for cottonseed oil, but whether he followed through on the idea remains unknown. He definitely bought a loom from a company in New York to make cotton bagging and crude clothing for his slaves, but accounts suggest

that he never completed the project. Certainly by 1850, Calhoun did own an undefined number of mills, which were valued at \$1,000 and produced cornmeal, wheat flour, and boards.

The 1860 census lists a company by the name of Rogers & Calhoun in the Abbeville area which researchers think Calhoun may have partly owned. The venture definitely would have matched his ambitions for a diversified industrial center. Rogers & Calhoun consisted of grist mills producing meal and flour worth \$2,700; a sawmill manufacturing \$1,500 worth of lumber; a tannery producing some \$3,500 worth of leather; and a blacksmith shop, which hammered out \$700 worth of tools.

Even if Calhoun didn't develop such an industrial center, he apparently pocketed plenty of cash. Whether through a canny

A Man Of Wealth

Not all Southern planters fared poorly in the aftermath of the Civil War. Some actually made it through the pitfalls of Reconstruction quite well.

For example, Banister Allen entered the war era with 58 slaves and 1,725 acres of land. After the war, his property probably deflated in value like everyone else's, but by 1870, he had overcome the loss, and produced crops worth \$47,211, much higher profits than any of his neighbors achieved.

When he died in 1876, Allen left at least \$5,300 in cash, as well as a considerable amount of land, and personal property worth \$1,607. According to Lesley Drucker, who investigated his life, Allen bequeathed most of his land to his wife, Ann Elizabeth.

Although the Allens didn't live in an elaborate mansion, they were still considered among the most well-to-do people in their community. Banister Allen's obituary described the planter as "one of the county's oldest citizens" and a person "regarded as one of the few rich men in Abbeville County."



Figure 147: Millwood Plantation houses had unusual eaves overlapping in front and back.

forecast of hard economic times or just plain good luck, he pulled off a feat that spared him the kinds of losses suffered by other planters. He apparently sold a large amount of land right before the Civil War began. In 1850, he owned 10,100 acres, according to U.S. Census records concerning Abbeville County, but by 1860 he had reduced his holdings to 2,850 acres.

In fact, Calhoun may have actually prospered during the war. Clearly, the war years were, for the most part, comfortable for him. In one letter, he related to a relative that he was "free of debt." In another, he wrote that he expected "an extraordinary crop" and that he was "never before so well prepared."

Calhoun probably used some of his new-found capital to farm more of his land. In 1850, he had 450 improved acres. By 1860, his improved land had increased to 1,450 acres.

He continued his active letter correspondence throughout the war, and among the letters he received were several requests for charity. In February, 1863, a distant cousin whose husband and sons were Confederate soldiers, wrote to beg him for help in buying food and paying off her debts. Another letter revealed that Calhoun sent food to a neighbor needing help feeding his slaves, and seeds for planting crops the following spring.

In August, 1863, Calhoun received another plea from an old school friend who had aban-



Figure 148: Medicine bottles found at Millwood Plantation included "Dr. King's New Discovery for Consumption" and a "liver regulator".



Figure 149: James Edward Calhoun had this view of the Savannah River from his Millwood Plantation.

doned his own coastal plantation as the Union army approached. The friend requested land for himself and his slaves. Calhoun offered use of some of his undeveloped property, but the friend, who was 65, wrote back that he had decided he wasn't up to such a task.

Despite these entreaties for help from the less fortunate, little personal sacrifice apparently was asked of Calhoun during the war. However, in 1864, he did send six of his slaves to Charleston to serve the Confederate Engineering Department, and he did pay higher taxes because of the war. In many ways, Millwood was insulated from the problems beginning to close in on many others because it was so self-sufficient. As the war progressed, however, growing numbers of items did become increasingly scarce. An agent for Calhoun notified him as early as Oc-

tober, 1863 that "coffee and sugar are not to be had." And a neighbor wrote to Calhoun about going all the way to Augusta to buy supplies. He reported that coffee was selling for \$11 per pound and that prices for other basics—salt, sugar, and quinine—were so high he could "scarcely believe it."

If documents accurately reflect Calhoun's affairs, he may have been able to pull off another financial coup at the war's end. He perhaps bought land again when prices had plummeted after peace was declared. Tax records for 1867 show that Calhoun owned 10,194 acres, up from 2,850 in 1860. Possibly he spent his cash reserves to buy back property he once owned. This wealth of real estate helped Calhoun withstand the trials ahead when a different type of conflict erupted in the Piedmont.



Figure 150: Tenant farming caused the worst erosion in the region's history. There was little incentive for conservation for farmers who didn't own the land they worked.

Chapter 16: Gone, But Not Forgotten

1865 to 1876

Reconstruction after the Civil War was a bitter period throughout the South. This era of forced change contributed to racial unrest that persisted long after the official interval of rehabilitation ordered by the Federal Government ended. A sense of devastating loss pervaded the entire region, even in areas where no battles were fought. Nearly an entire generation of young men had been killed or permanently disabled, and many others found themselves homeless because Union soldiers had often burned everything in their paths that might help the Rebels prolong the conflict.

Roads that could have carried people somewhere else to start over were rutted and virtually impassable; and railroads were frequently in similar disrepair. Most Southerners, however, had little or no money to finance such a journey anyway. Of those who did manage to hold onto cash and bonds during the hard war years, most found their remaining wealth sunk into all but worthless Confederate currency. Many, once rich, were now poor. Fields lay fallow without the farmers to tend them. Horses to pull the plows were also gone, killed in battles or stolen. With crops unplanted, and livestock all but depleted, fresh food became scarce, and what commodities were available often came at exorbitant prices. If there were crops to sell, wagons to carry them to market were also in short supply.

A bitter irony was that slaves freed by the war in some ways remained no better off than before. Policies designed to help them went awry, derailed by insufficient money and personnel to enforce the mandates, and sabotaged by Southern Whites. One method Federal officials devised to protect Blacks from possible abuse was to require White employers to sign a contract with every laborer stating exact wages. Most Whites considered the con-

tracts repulsive, not only because they hated any commands from the victors of the war, but also because they resisted any measure requiring them to treat as equals people they had only recently considered their property.

But the contracts were mandatory, so many Whites circumvented the government's intent by writing contracts that replicated conditions almost identical to those of slavery. These documents sometimes bound workers for an entire year to an employer and stipulated that in return laborers would receive food, clothing, and housing, just as they did in slave times, but now they would also earn a small wage.

The History Group, an Atlanta-based research organization, found an example of the sort of contracts used: "This agreement made and entered into the ___ day of August, 1865 ...Joseph R. Deadwyler agrees to furnish [his former servants] clothing and food and humane treatment as heretofore, and in addition to their own patches I will give to each ten bushels of corn and five gallons syrup and meat, and they agree to labor as heretofore on my farms and as I may direct until the 25th day of December next, and to behave themselves."

Many Blacks were also displeased by the contracts because they wanted nothing that would legally bind them back to former owners. On the other hand, if the slaveholders had been relatively just, Blacks were more inclined to continue working at the same plantation as they did before the war's end. Some, though, wanted nothing at all to do with their former masters or any other Southern Whites. Groups of former slaves congregated in towns and near Federal army bases waiting to receive the promised "40 acres and a mule" or some other allotment of land from the Federal Govern-

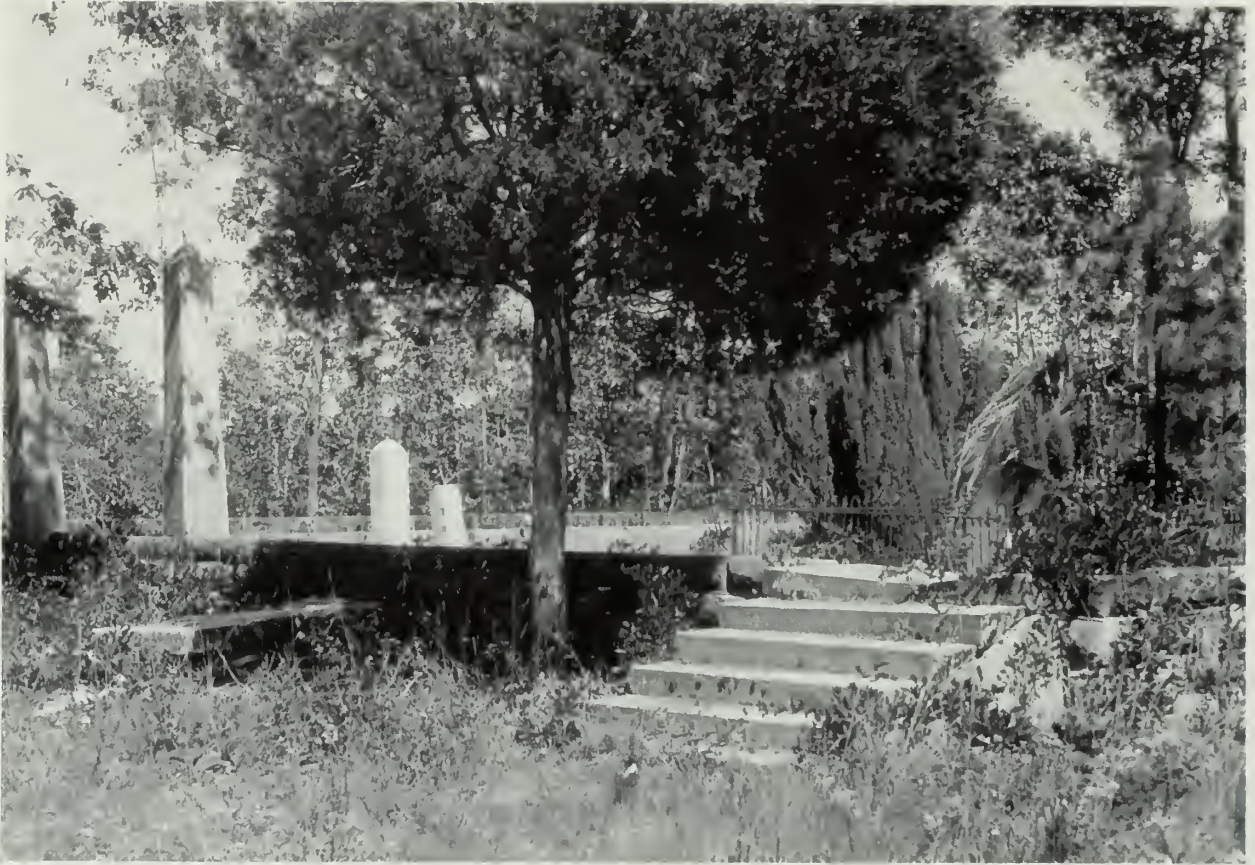


Figure 151: The Civil War left thousands of dead in the North and South and a long lasting-bitterness on both sides.

ment. Most, however, waited in vain. Some Blacks left the South altogether. Others, untrained for other employment, eventually returned to field work. But many Black males were opposed to their women and children working in the fields anymore. They wanted their families to have the same leisure that many White women and children enjoyed. All of these factors combined to cause a severe labor shortage. Captain C. R. Becker, sent by the Federal Government to guide Reconstruction efforts on the South Carolina side of the Savannah River, reported: "...there are none who need want employment, if they only choose to seek it, for in fact I have applications nearly every day from planters who are in want of hands and unable to obtain them." In another report, the captain stated some ex-slaveholders were still lashing their Black laborers with whips, and that many Blacks were stealing food.

The transition to a free labor market was

the responsibility of the Bureau of Refugees, Freedmen, and Abandoned Lands, which became known as the Freedmen's Bureau. An arm of the United States Congress, the Freedmen's Bureau was also responsible for doling out assistance to Whites, destitute because of the war, and to Blacks, most of whom had never had any money of their own. No other plans existed for infusing money into the region's crippled economy, no Marshall Plan to rebuild cities like Atlanta destroyed in the war. Federal coffers were severely depleted from the enormous costs of the war, and some Washington officials were disinclined to appropriate resources to help their recent enemies.

People in the Russell area, although spared battles on their land, weren't immune to the many costs of the war or to the fear of one another that existed between Blacks and Whites. Much of the area's wealth before the war consisted of slaves. Now, that wealth had

vanished; many Whites faced financial ruin. Some, however, used the economic depression as an opportunity to acquire cheap land, as James Edward Calhoun apparently did.

Recent studies in Louisiana and Alabama reveal that the planter class as a whole was actually able to add to their land holdings between 1860 and 1870, although few people managed a 72 percent increase in property as Calhoun apparently accomplished. But even he struggled some during Reconstruction, unsuccessfully seeking loans several times between 1865 and 1867. In a letter in 1865, an agent Calhoun had asked to help him get a loan in Philadelphia wrote: "Affairs are still so unsettled in the South, that is as to getting the Freedmen to their labor, that I have not even attempted to ask for a loan."

Calhoun probably eventually got a loan, but nonetheless he considered himself financially disadvantaged. He had lost his slaves, valued at about \$130,000, according to researchers

under the direction of Charles Orser. Even as late as 1869, Calhoun wrote to a friend: "My house, which you knew, is rotting over my head, past repair. My losses have been so immense that I cannot afford to build. I can do no more than try to gather enough to enable me to modify one of my outbuildings, that I may have some convenience and more security."

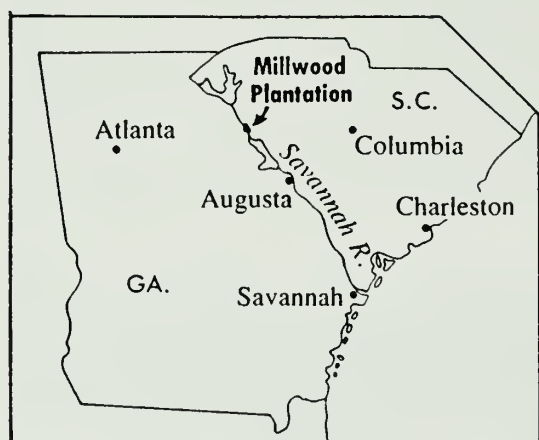
While his wartime prosperity may have dissipated, Calhoun was undoubtedly exaggerating the hardships he experienced. Any real financial difficulties he might have experienced were short-lived and he was soon earning enough profits to launch major construction projects. Certainly, in the years following Reconstruction, he was comfortably rich, and as J. W. Joseph observed: "His frequent complaints (during Reconstruction) of impoverishment and roofs rotting over his head must be taken in light of Calhoun's character, which emphasized the impediments to his industrial



Figure 152: If slaveholders had been relatively just, Blacks sometimes remained as tenants after the war. This family was photographed at Millwood Plantation.

schemes." While Calhoun was concerned with expanding his interests, many others were concerned with merely staying alive during Reconstruction.

Violence had by no means ended with the war, and most places had few, if any, Federal Government representatives to police them. Lawlessness was rampant and vigilantes often became the only enforcers. A clear example of the inadequacy of government at the time were the few representatives assigned to the Freedmen's Bureau. For all of Georgia, Florida, and South Carolina, a territory with 400,000 former slaves, Brevet Major General Rufus B. Saxon commanded a staff of only 24 assistants



Map 26: Calhoun's Millwood Plantation was on both sides of the Savannah River in South Carolina and Georgia.

and 20 doctors.

Saxon concentrated his thinly stretched effort on the coastal areas where the majority of the former slaves lived. He also opened a district office in Anderson, South Carolina, although the office was apparently understaffed. Few Federal troops patrolled anywhere in the surrounding area.

The Anderson office provided some of the sparse written evidence found by Russell researchers about life during Reconstruction. Documents indicated that a tense atmosphere persisted, often erupting into violence towards Blacks. According to one report, the former slaves, "in this section of the state (are) not

freedmen and women...they are nominally such, but their condition indeed is worse than bondage itself and ever will be unless this subdistrict is flooded with...cavalry....The U.S. soldiers and the freedmen are alike threatened and despised, and a very little respected. The military authorities are seldom obeyed except when necessity compels—and the garrison is limited, hence a majority of the guilty go unpunished."

Captain C. R. Becker, in charge of the Freedmen's Bureau in Anderson, detailed one example of the terrors taking place in a report he filed in May, 1866: "On Saturday, May 12, about ten o'clock a freedman by name of Elbert MacAdams was taken from his house by an unknown man and shot three times and then had his throat cut and was dragged into the woods about a hundred yards from his house, where he was found dead on Sunday morning. The freedman had come to see his wife on Basil Callahan's plantation, about 16 miles from here....Freedmen report to the office every day that they are being driven off, and my time is entirely taken up looking into the reason and seeing that they get their rights."

Early in Reconstruction, White-controlled legislatures throughout the South strove to limit or to end altogether many of the freedoms Blacks had won. They did this by passing laws called "Black Codes," statutes that varied from state to state, but expressed similar intent. Some of the laws limited Black voting rights and the types of jobs they could take to only the lowest-paying, such as farm laborer. Others prevented Blacks from serving on juries and owning guns, and from testifying in court against Whites. The codes also made public school segregation the law, and required segregation in other arenas as well. For example, Blacks were prohibited from using the same public facilities as Whites. And to countermand the lack of laborers, legislators enacted strict vagrancy laws so that anyone not working could be arrested and hired out to White employers to pay off vagrancy fines.

Another account discussed an episode involving an entire Black community that had apparently fled to avoid election-directed violence: "Innumerable persons have been lying out in the woods since sometime before the election to save being murdered in their beds, their houses having in the meantime been frequently visited at night for that purpose." In still another instance, a Black man attempting to vote at Calhoun Mill was shot, but he apparently survived.

The agricultural life of the region—the only life that most Blacks and Whites had ever known—did help foster some cooperation based on mutual need. Planters continued to need help farming their land, and Blacks needed somewhere to live and money for food. Just after the war, many planters hired their former slaves for low wages. Living in the same houses they had occupied as slaves, the workers wore clothes and ate food dis-

pensed by the planters, and labored in gangs under the vigilance of bosses similar to those of the antebellum years. The situation so resembled slavery that when they could, Blacks complained and sought a different system.

Calhoun, during at least part of Reconstruction, hired laborers in a squad system, enabling him to maintain some of the same control he had as a slaveholder. Under this system, he signed contracts in 1867 with seven Blacks who were to act as bosses. These seven men were expected to hire their own crews and to enforce discipline, including preventing workers from leaving the plantation or having visitors without Calhoun's permission. They were further ordered "to watch & defend the Premises night & day."

The seven bosses, three of whom were named Calhoun, indicating they were his former slaves, paid the planter half of every-



Figure 153: Smoke rises from the chimney of a Millwood Plantation house in an 1875 photograph. The unusual eaves characteristic of the estate were on the barns, as well as the houses.

thing their crews grew, and paid the workers from the other half. Besides growing crops, these crews were responsible for repairing plantation fences, roads, and buildings.

Calhoun loaned work animals to the crew leaders, who were required to pay back the full worth of an animal if it were stolen or neglected. The leaders also had to buy supplies from Calhoun, who in turn loaned them hogs and chickens on condition that he "shall receive one-third part of all the fresh eggs, and of the increase in poultry, every month a roasting pig, and beginning at the first of November and closing at the 31st of December, a sounded, well-fatted Hog, weighing at least 150 pounds." Additionally, if any laborer

systems, the landlord supplied a patch of land and a house to the worker in return for rent, which was often paid as part of the harvest because cash was in such short supply.

Tenant houses under the two arrangements tended to be spread throughout the plantation in a pattern called "fragmented" by geographer Merle Prunty. This dispersed housing provided workers with some measure of freedom because they escaped constant surveillance from a planter or boss by living some distance away. At Millwood, for instance, tenants lived in houses that tended to be about one-third mile from their neighbors. These houses resembled those used earlier by slaves, although they were slightly larger. The houses

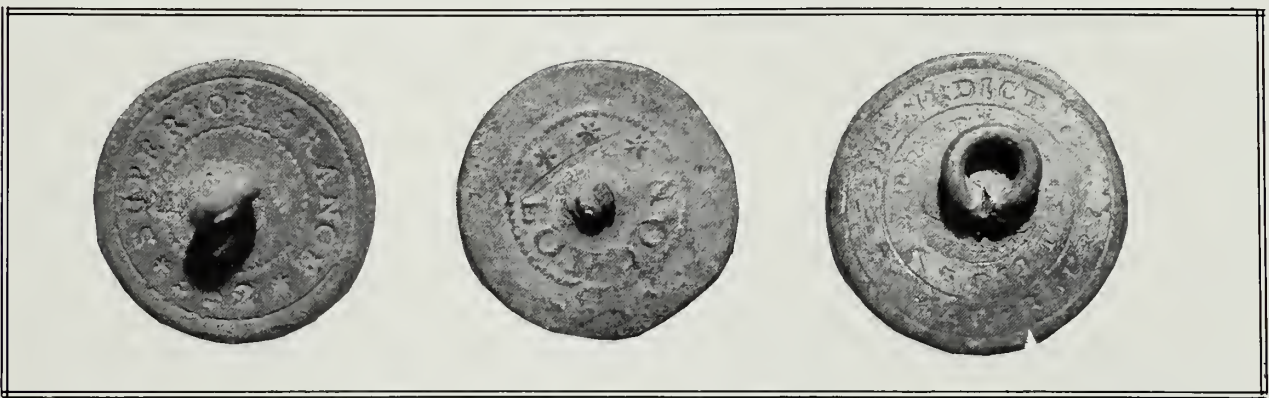


Figure 154: Old English buttons were found in the excavations at Millwood Plantation.

accepted an outside job elsewhere, Calhoun received one-third of his pay.

Calhoun, like most landowners, probably experimented with various labor systems as he adjusted to the loss of slaves. According to one planter in 1865: "On twenty plantations around me there are ten different styles of contracts."

By 1870, most planters had switched to sharecropping or renting land. At first, Blacks probably considered these alternatives improvements over squad systems because they gained some autonomy. Under sharecropping, the landlord supplied basic tools and livestock. Renter systems required tenants to provide their own animals and equipment. Under both

also tended to be situated on a slope, generally facing south to capture the winter sun's warmth.

In contrast to what happened on plantations, small farmers often paid wages to their help. Their workers continued to live near the main farm house, duplicating a pattern from slavery. As for the planters, gradually they came to prefer tenancy because they were no longer required to spend as much time managing workers, yet still had a mostly stable workforce. Over time, many used both White and Black tenants.

Tenancy helped the Southern economy gradually rebound and cotton to regain its former prominence. Production actually

boomed again because most tenants grew cotton as their main crop. With the economy expanding, heightened opportunities drew more people to the Piedmont. Between 1850 and 1890, the population in the reservoir area moderately increased, with the percentage of Black and White residents staying about the same. Population growth was much more dramatic in Anderson County, where the number of people doubled as the county blossomed into a textile manufacturing center.

The economic mainstay for the rest of the area continued to be farming, predominantly by renters and sharecroppers, leading to unfortunate results for the land. While some planters maintained direct involvement in farming their property, others, like Calhoun, apparently lost interest altogether, and relied heavily on overseers to ensure they got their fair shares of the crops. Tenants felt no incentive to protect land they didn't own when it was in

their best interest to squeeze as big a harvest as possible from the soil. Any crop rotation to restore the soil or other land conservation practiced before Reconstruction was commonly abandoned, and the broad neglect caused the worst erosion in the long history of the area. The cost in lost soil was staggering. Torrents of mud rushed into the Savannah River, which became more susceptible to floods, in turn causing more erosion. The economic damage from the destruction wouldn't be felt for awhile, but the erosion helped set the stage for the cotton market to tumble.

Tenant farming continued to tie many Blacks to a landowner through debt they incurred. Besides agreeing to pay rent with part of their harvests, tenants commonly borrowed from the landlord to pay for livestock, feed, seed, as well as some of the food they ate. But, when they harvested their crops, profits, which were rarely substantial, were



Figure 155: Cotton boomed once more after the Civil War. Wagons loaded with bales gathered in the square around the town bell in Elberton, Georgia. This was a common sight throughout the South.



Figure 156: Researchers examined a tenant house on the Caldwell-Hutchison Farm in Abbeville, South Carolina. Tenant farming was common in the region after slavery ended.

often insufficient to pay the debts. Tenants were obligated to farm another season in hopes that the next harvest would be better, but for many, the cycle became a perpetual treadmill they couldn't escape.

The situation was perpetuated in some instances by landlords who capitalized on Blacks' illiteracy and lack of education by manipulating debt figures against them. Still, the Russell studies of several White families revealed that most of them had fairly good relations with their Black tenants, although that wasn't always the case. At least two researchers located several sources who remembered a form of "debt peonage" administered by one of the landlord families.

The "debt peonage" worked like this: The landlord family members assembled much of their workforce by bailing poor people out of jail in exchange for their labor. As further payment, they also demanded that the prisoners' families work for them, too. The chances of the workers repaying the bail steadily diminished because they were also required to repay for supplies and food the landowners provided. Instead of clearing their debts, the

workers became hopelessly entrenched in the landowners' service.

The cotton boom and the decline of plantations as the principal places to obtain supplies and receive other services led to the growth of small communities. Normally, these communities were located where major roads intersected. The town of Heardmont in Elbert County was such a community. Heardmont, mentioned in an earlier chapter, took the same name as a neighboring plantation, which belonged to Georgia Governor Stephen Heard.

In the late 1880's, the town of Heardmont included several White-owned stores, but the community's principal landmark was the Bethel Grove Baptist Church, a Black church. The town was also known as the base for a small group of Black landowners. While tenancy was generally associated with poverty, a few tenants managed to break out of the system through a combination of hard work, knowledge, and a certain amount of luck. Not infrequently, however, when Black tenants managed to accumulate enough money to buy land, they were forced to overcome stiff White resistance to their owning property.



Figure 157: The small community of Heardmont, which grew up in Elbert County near Georgia Governor Stephen Heard's plantation, had its own canning factory.

of their disapproval, but Dye ignored them. In retaliation for his behavior, the White community all but ostracized him.

Lucinda bore Dye eight children. A ninth child, also born by Lucinda, was reportedly fathered by another man, but was raised with Dye's children and inherited equally from his estate.

When he died, sometime after 1865, Dye bequeathed all his land, including 3,000 acres near Heardmont, to Lucinda and the children. But, because of various causes, his offspring lost most of

their property over the years. Some of the land may have been stolen through illegal actions on the part of Whites. Part of Dye's land, though, was eventually bought by other Blacks.

The first Black landowners in Heardmont were actually part White, fathered by George Washington Dye, a White planter. Sometime before the Civil War, according to oral tradition, Dye's marriage proposal to the daughter of a prominent White family was rejected because he didn't have enough money. Dye, then postmaster in Elbert County, vowed he would someday be richer than the family that had rejected him. He determinedly set out to make money, and, eventually, fulfilled his vow. He acquired great wealth, apparently through shrewd business dealings and gambling.

Dye also lived openly and defiantly in an unmarried relationship with his slave, Lucinda. Many local Whites considered the arrangement scandalous, and made no secret



Figure 158: The bottom row of logs had rotted away on a tenant barn at the Caldwell-Hutchison Farm.



Figure 159: Calhoun probably experimented with labor systems after the war. Eventually, he used tenant farmers. This former Millwood tenant house was still occupied during the Russell studies.

In Georgia before the Civil War, free Blacks reportedly owned about 3,000 farms. By 1903, when Blacks were about half of Georgia's population, they owned 18,715 farms, about four percent of all farms in the state. By then, Reconstruction had passed from the scene, forced to an end by political pressures.

The election of 1876 was, in a situation reflective of the times, a divisive battle between the two major parties. Neither Democratic nor Republican presidential candidate captured enough electoral votes to win the White House; each side claimed 20 disputed votes, and refused to concede defeat. The stalemate dragged on for months at the peril of

the stability of the presidency and the entire government. Finally, party leaders compromised. Rutherford B. Hayes, the Republican, could be inaugurated as president, but in exchange he would withdraw the despised Federal troops from the South. Even before this compromise was finally reached, however, many in the North were losing interest in controlling Southern politics.

By the late 1870's, the South Carolina and Georgia Republican governments, which included many Blacks, had both been turned out of office, and replaced by predominately White, conservative governments. Reconstruction was over, but the actual rebuilding of the South was just beginning.



Figure 160: Pearle Mill was an important employer in Elbert County, Georgia, before disaster struck. Spindles with cotton yarn, one of several products made, are visible behind the millworkers.

Chapter 17: Risky Ventures, Rising Waters

1876 to 1908

Investors who before the Civil War put their capital in slaves, now turned to other ways to make money, many of them with an eye to industry. James Edward Calhoun found himself in the company of other planters who were following the same path he had started long before, developing alternative methods besides farming to produce income. Planters began to keep offices in town so they could better engage in these new pursuits, their energy fired by a national surge in economic development in the late 1800's. Enormous fortunes were being made in the North as the Industrial Revolution took hold. Why shouldn't some of that same prosperity fill pockets in the South?

Enthusiasm may have overshadowed caution for some, who invested so heavily in new businesses that when those enterprises did not fare as handsomely as expected, they faced heavy losses, and even ruin. They underestimated how far the South had to go to transform from a predominantly agrarian society, and the error proved catastrophic.

Before the Civil War, industry in the reservoir area was largely confined to crop-processing mills, some of which opened before 1800. Picturesque and uncomplicated, these early mills were powered by huge wheels turned by the flow of a creek or river. The wheels, normally between ten and 16 feet in diameter, functioned in various ways. One type was called the overshot wheel. Water ran down a slanted wooden chute that ended at the top of the wheel. The water then spilled into buckets or against boards, called paddles, attached to the wheel. The water's weight and impact forced the wheel to turn, generating power.

The same dynamics were at work with the breast wheel, only this time the chute dropped water at the middle of the wheel. In the under-

shot wheel, the water collided with paddles near the wheel bottom. The construction principal behind these devices was ancient, dating back at least 2,000 years when the Chinese used paddle wheels to dump water from streams into irrigation ditches.

Before 1820, mills in the study boundaries didn't generate high profits; they were small businesses. The mills usually served farmers who brought their corn and grains to be ground, and customarily paid the miller with a percentage of the resulting meal. White Mill was apparently this kind of operation. Built sometime before 1820, the mill was probably designed to help attract settlers to the area. John McGowan was an early owner of the land where the mill stood, and perhaps was the builder. McGowan envisioned a town nearby, a place he called Alexandria, apparently to honor William Alexander, from whom he bought the land. A community did form there and, sometime after 1820, Alexandria became Edinburg. But the community never prospered and soon became one of Georgia's ghost towns.

The water wheel at White Mill, however, kept turning for almost 100 years, passing through a succession of owners such as William Cleveland, who bought the mill in 1857 for \$1,397. Cleveland also ran a store, a blacksmith shop, and a ferry. He also farmed, reflecting both his ambition and probably the difficulty of earning much profit from only a single endeavor. Cleveland apparently was a leading figure in Edinburg's brief history. He died July 9, 1861, presumably while on his way to fight in the Civil War: "Just as the 15th Georgia regiment marched to the battle front he died with typhoid fever," wrote a reporter for *The Elberton Star*.

The mill's longevity was partly a result of

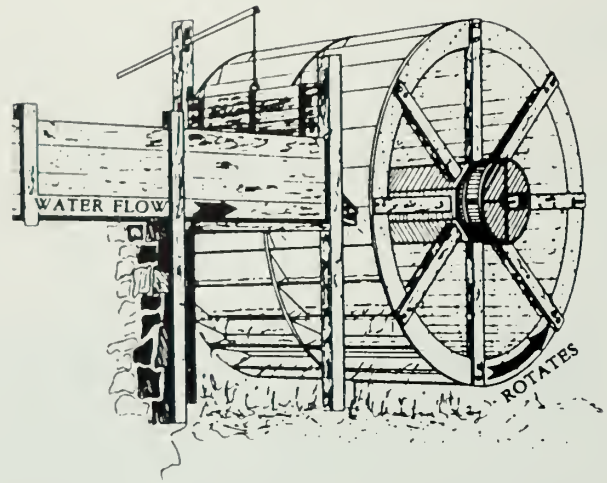


Figure 161: On the left is an overshot wheel, which intercepted water at the wheel top in buckets or against boards; on the right is a breast wheel, which caught water at the middle of the wheel.

its simple design, which researchers led by Robert Newman learned about through excavations, interviews, and document searches. To capture water power for the mill, big boulders were lined up to form a dam at the juncture of the Savannah River and Coldwater Creek. This barrier funneled water towards the river bank where it was channeled into the bottom of the paddle wheel.

The wheel turned at the side of a three-story building. The first floor was made of granite blocks, while the other two floors were built of wood. If the mill was like many of its time, there was a wooden shaft inserted into the hub of the paddle wheel, and as the wheel turned, the shaft turned. The shaft then rotated another smaller, but still substantial, wheel inside the building. This interior wheel was ridged along its outside perimeter. Put another way, this interior wheel was a gear, which fit next to another gear that turned simultaneously and powered the big grinding stones that pulverized corn kernels into meal. Archeologists uncovered a large gear wheel, about two-and-a-half feet in diameter, at the site.

Over time, area mills became more sophisticated. In the last half of the 1800's, first

porcelain then steel rollers replaced heavy millstones. By 1850, some shafts were made of wrought iron; by 1860, shafts were formed from rolled steel, making them lighter and more efficient.

Around 1850, the American inventor Oliver Evans conceived the idea of wrapping heavy conveyor belts around the shafts. The belts then could turn machinery on several levels in the mill. In addition, the belts sometimes carried grain from floor to floor, functioning like miniature escalators. His invention eventually led to many uses, spurring automation. Today, the same principal is evident in the automobile fan belt.

Evans was not alone among Americans of the time in devising methods to propel industrial growth. The flood of ideas for industry that began in Europe earlier in the 1800's was now raging much more intensely in the United States. New inventions were appearing in record numbers. Mechanics, millwrights, and tinkerers of all sorts tried their hands at making products more efficiently and profitably. But some things didn't change for awhile, including White Mill. Year after year, it kept producing cornmeal, and something else.

Archeologists discovered remnants there of a still for making liquor, a not uncommon occurrence for the era. After all, two of corn liquor's main ingredients, corn and water, were always handy. Most stills associated with mills were placed in nearby buildings. What was unusual about the still at White Mill was that it was right inside the building.

White Mill, like so many others in the area, was destroyed in the great flood of 1908. Its long existence was a testament to its sound technology and good location near McGowan's Ferry, an important early transit point across the Savannah River.

In the 1820's, a new idea began to spread in mill design. Influenced by the work of French inventor, Benoit Fourneyron, builders did away with the big water wheels and installed smaller wheels, called turbines, placing them flat to the ground inside a confined space. Water, under pressure, was forced inside the confined space to drive the paddles of the wheel. Early turbines in the reservoir area and their box-like containers were almost always made of wood. James Edward Calhoun was an early, antebellum user of these turbines.

The Eureka Mill, on Beaverdam Creek, was eventually powered by this kind of turbine. Located in Georgia not far from the Mississippian ceremonial center, Beaverdam Creek Mound, the mill was built around 1820. Eureka Mill fit a pattern common in antebellum times because it was first associated with a plantation. Grist mills produced flour and cornmeal to feed the many plantation residents, and also ground grain for neighboring farmers. Eureka Mill, like White Mill, was destroyed by the 1908 flood. Before its loss, however, the mill passed through various



Figure 162: Archeologists found an old gear in the White Mill excavation.

owners, including William Mattox, whose story conveys how quickly an entrepreneur's bright prospects could tarnish.

Mattox, for a time, was a successful planter and businessman. He was associated with several mills, including one he named after himself. Born into a wealthy family in 1836, he attended the University of Georgia, then returned home to assume the role of a planter. By 1861, he owned 1,032 acres along the Georgia side of the Savannah River, north of Beaverdam Creek. When the Civil War erupted, he joined the Confederate army as an officer. It's unclear, however, whether he served only until 1862 or for the duration of the conflict. What is clear is that by the end of the war, when many were strapped for cash, Mattox was spending. Evidence suggests that sometime during or immediately after the war, he built a mill on his property near the Savannah and called it Mattox Mill.

By 1880, Mattox Mill contained two sets of mill stones for grinding grain into grist and flour. Five, metal-encased turbines generated power in a manner similar to the way water pressure builds when a finger is held over the nozzle of a hose. The case around the turbine

More Than Just A Mill

The story of Eurkea Mill shows how both ownership and the reasons for operating mills changed in the 1800's. Built around 1820, Eureka Mill had already had several owners, including Tavner Fortson, before Joseph Rucker acquired major interest in the enterprise in 1837, along with other partners. Rucker also owned one of the largest plantations in the area. The mill remained under this ownership until near the end of the Civil War, when a new group of investors bought the property for \$4,854. William Mattox, another well-to-do planter, was among them.

The new owners sold the mill two years later to John Grogan and other investors. They apparently made improvements because by 1875 the mill was valued at \$9,350, nearly twice its worth a decade earlier. By this time, the mill probably used two wooden turbines, each with a metal hub and shaft. A dam diverted water from Beaverdam Creek into a ditch, called a millrace, which carried the flow into the mill to power the equipment. Like many dams of the period, this one was a crib dam, made of wood and shaped like a V. Rocks were piled up inside the V to help hold the dam in place.

In the late 1800's, when almost everybody farmed and hauled their crops to a mill for grinding, mills became the logical place to establish small service centers as well. At Eureka Mill, there was a machinery storehouse, a blacksmith, a shoe shop, and a house for the miller. A small community called Eureka developed nearby.

John Grogan's daughter, Leela Grogan Hobbs, eventually inherited five-sixths of the mill in 1895, and bought the remaining shares to become sole owner by 1907. She planned to convert the facility into a full-fledged cotton mill, but whether she accomplished this goal is unknown. In 1908, 14 inches of rain fell in just 48 hours, raising Beaverdam Creek as much as 20 feet above its banks. The rampaging waters destroyed Eurkea Mill, which was never rebuilt.

wheel funneled incoming water into a smaller and smaller space, before allowing it to escape. The added pressure helped spin the turbine wheel faster. The turbines at Mattox Mill could generate 100 horsepower, enough to grind 200 bushels of grain a day.

To get water to the turbines of his mill, Mattox built a dam from his land to McCalla Island in the center of the Savannah River. The dam, located about a mile up river from the mill, directed water into a broad ditch, called a millrace, where it flowed towards the mill. Archeologists excavating the millrace found that it was 30 feet wide in places, although erosion over the years may have contributed to the width. The millrace averaged about ten feet deep and was a mile long, and gradually sloped downward to increase water pressure.

Mattox sold the mill in 1889, apparently to raise money for a more ambitious project. The mill was just one of his successes. According to the Elbert County Tax Digest of 1886-1887, he had increased his land holdings to 3,414

acres, had personal property worth \$24,222, and employed 40 people. Backed by these considerable holdings and encouraged by the arrival of the railroads, he was ready to tackle a major industrial investment.

Poor transportation and subsequent isolation had held back development of big commercial mills in the region. Also, farming, the dominant employment, provided residents with little cash to buy what factories might produce. But by 1889, major railroad construction was underway, encouraging investors like Mattox to expand. The rails could provide them with a ready method for sending merchandise to distant markets. And they faced no shortage of potential employees. With tenant farming's meager pay, many farmers, both Blacks and Whites, were eager to work in factories, if they could find jobs.

William Mattox and other prominent investors intended to capitalize on this ready labor and the area's principal crop, cotton. They purchased Gray Mill in Elbert County for \$1,300, and renamed it Heardmont Mills

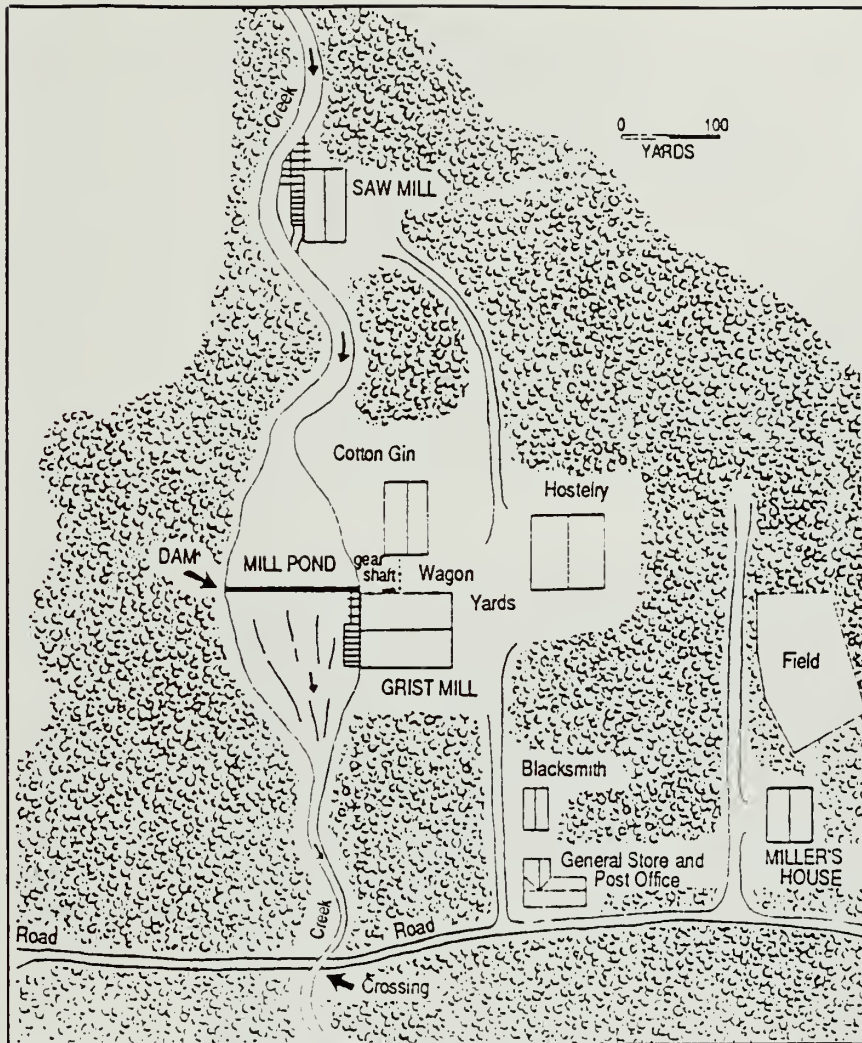


Figure 163: Gregory Jeane created a typical mill complex model showing various services offered, including a blacksmith, gin, hotel, store, post office, and saw mill.

because of its location near the small town of Heardmont. They planned to renovate this grist mill into a center for manufacturing various cotton products.

Mattox was company president, and John McCalla, son of George McCalla who suffered such financial woes following the Civil War, was treasurer. Other investors included John Grogan, who owned Eureka Mill, and Eugene Heard, descendant of Stephen Heard for whom Heardmont was named, and others. Buying machinery in the Northeast was one of Mattox's first tasks. He bought eight cording machines and spinning frames for 1,000 spindles. Newspapers of the day carried encouraging accounts about the project. According to

these reports, the venture was experimental, but if successful, the mill would become one of the largest in the South.

Heardmont Mills opened for business full of promise in March 1890, but disaster struck only three months later. A bolt of lightning hit the mill, setting it ablaze, and the building burned beyond repair. The investors had no insurance. William Mattox suffered a devastating and unrecoverable financial loss from the fire. Other setbacks followed. By 1898, he was unable to pay his bills, and a New York life insurance company filed suit against him. Eventually, the Elbert County commissioners stepped in and sold most of his land. Not long after, in 1902, the life of a man once so successful and admired ended in a gun battle. He was killed by his son-in-law.

The textile manufacturing boom that Mattox had intended to be a part of did occur in the South, and the Russell area

was caught up in the growth. But heavy silt accumulation—caused by persistent erosion—clogged rivers, millraces, and machinery, and led to high maintenance costs. The erosion also continued to promote flooding, which eventually proved much harder to overcome.

After Heardmont Mills burned, Thomas Swift, an Elberton businessman, and his two sons, William and James, bought the property. They built another mill about a half mile from where the old mill had stood, and called their enterprise Pearle Mill, in honor of Thomas' daughter. Thomas Swift, a Georgia legislator from 1896 to 1899, was an ardent spokesman for Southern industrialization, a cause he

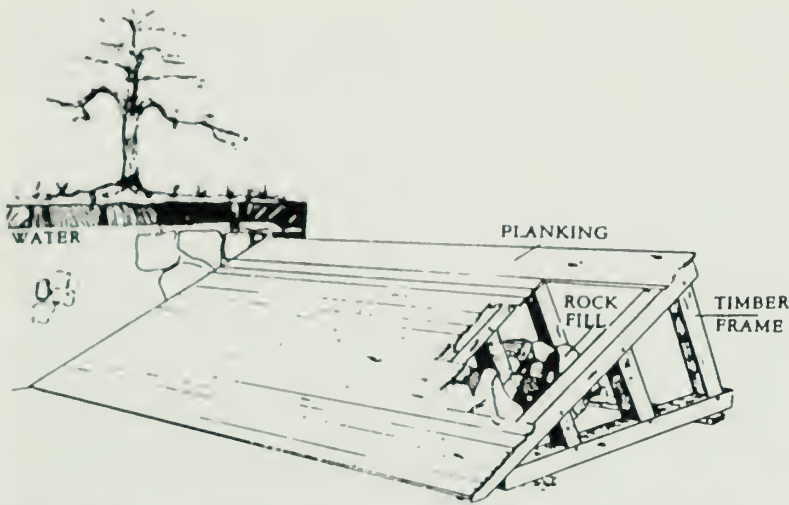


Figure 164: A crib dam was held in place by stacked rocks.

actively pursued on his own and tried to rally others to join. "I have been making yarn for weavers in Philadelphia and have had all that I could do," he once declared, adding, "That suit of clothes you wear is made of Southern cotton transformed into cloth worsted by the skill of a New England mill. Go into any store in the land and hidden under various deceptive names you will buy back some of the very cotton which you looked upon in the field last year."

Pearle Mill opened in January 1896. Built of granite and brick, the two-and-a-half-story building was at the end of a half-mile millrace. The mill began operation with 26 carding machines which disentangled cotton fibers. The fibers were then spun into yarn by 3,000 spindles. By 1905, the factory could produce twice as much cotton yarn as it did on opening day. There were now 8,000 spindles. Swift apparently hadn't been exaggerat-

ing when he talked of the potential demand for his products. Pearle Mill spun yarn, manufactured rope, made wadded cotton stuffing for furniture and mattresses, and produced other cotton products.

Entire families, including young children, often labored in the mill and lived in a small village called Beverly, which sprung up nearby. By 1908, Beverly consisted of 38 company-built houses, a store, a school, a post office, and a Methodist church called Henry's Chapel. The minister thought he possessed a divine power to heal

illnesses, according to one account. Residents of Beverly also had their own community court to settle disputes.

William Swift discussed his employees in an interview with *The Elberton Star*: "Most of these people...too poor to own lands, were in a sad condition indeed. Unlettered, with no employment, suffering from adversity which seems to delight in visiting the poor, anything which would give them work was a godsend.

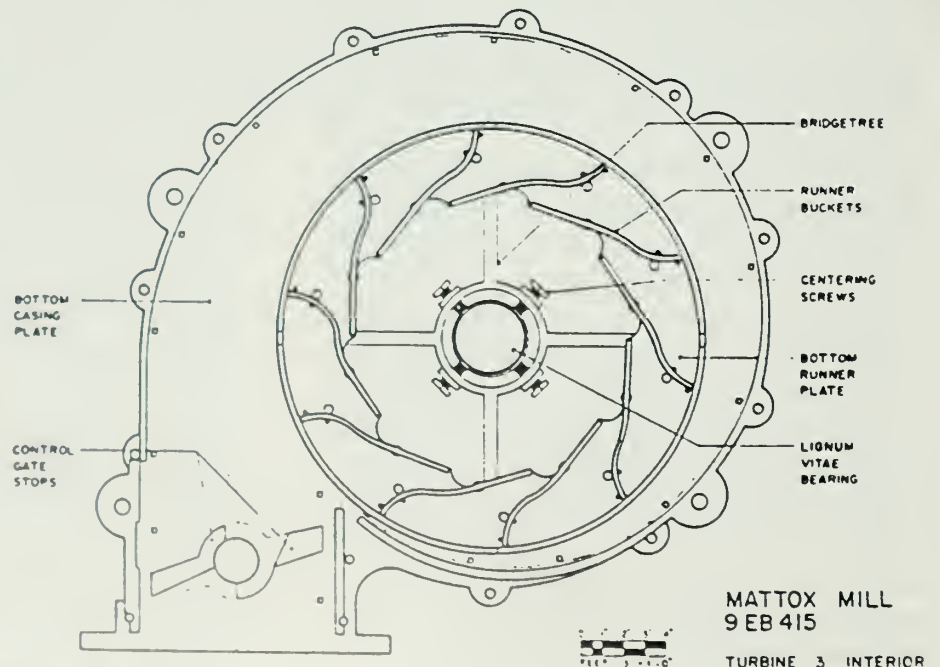


Figure 165: The parts of a metal-encased turbine found at Mattox Mill are labeled in this drawing. Such turbines generated power by squeezing water into a tight space.



Figure 166: Tanner's Mill in Hall County, Georgia, is one of the oldest grist mills in the state. Most early mills resembled Tanner's Mill, but styles gradually changed.

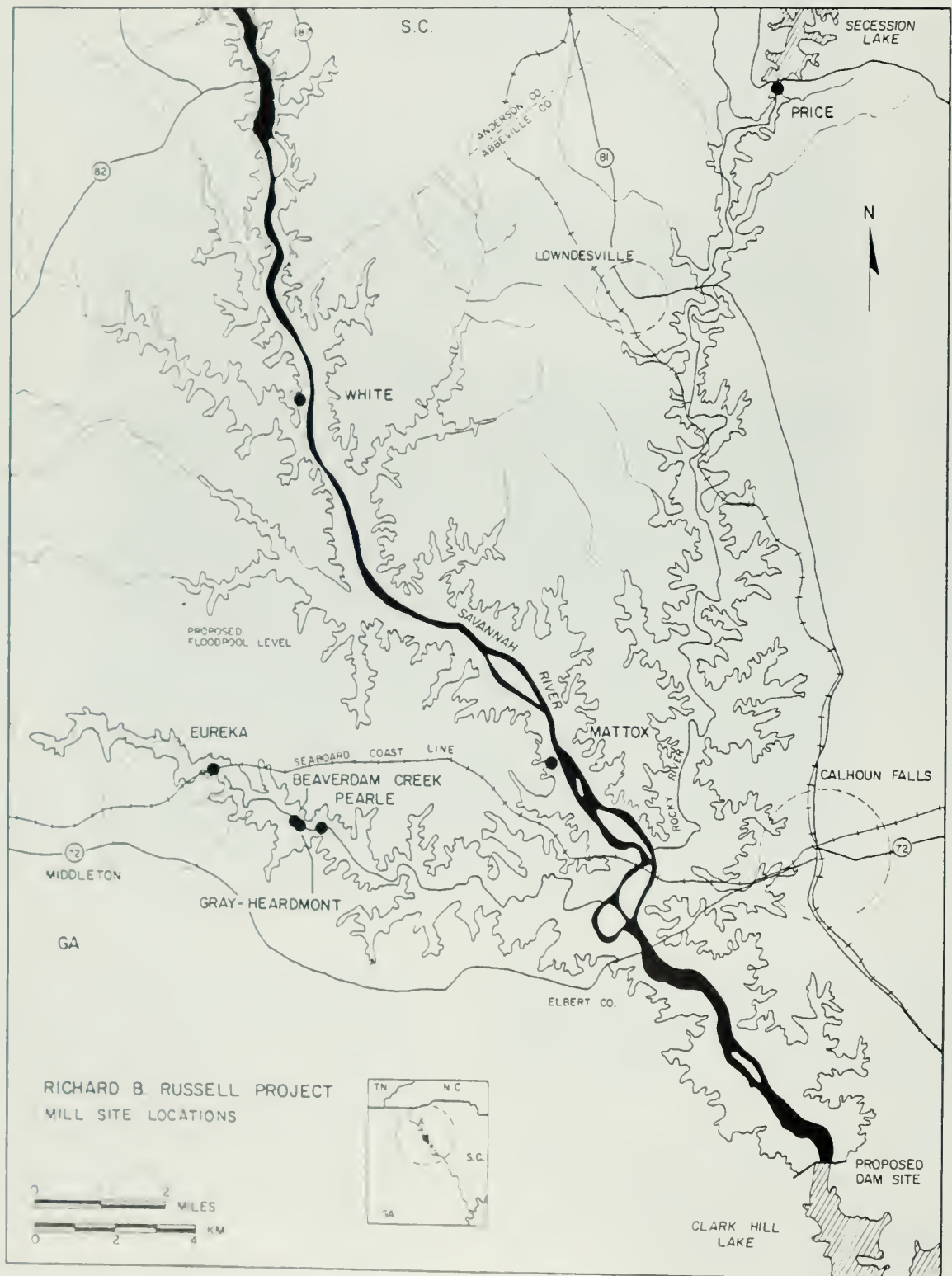
We have quite a colony recruited from this class and they are today self respecting as any community of people in the land. They make all the way from \$3 to \$6 a week apiece, with plenty of work for every member of the family."

As to his use of child labor, Swift stated: "It is not in the economical interests of mill owners to have children under twelve or fourteen years of age, because they are wasteful and often in the way. The pressure to employ them comes from the families themselves and has been essential in the crush and

necessity of new conditions."

Callie May Hudson, descendant of Stephen Heard and granddaughter of two investors in Heardmont Mill, remembered that the homes in Beverly were lined along an unpaved road, and that some houses had backyards extending "right down to the millrace." She recalled a large house built for the mill superintendent and another big one for the doctor who lived on the site.

Both Whites and Blacks worked in Pearle Mill, although Blacks were restricted to the lowest jobs, such as janitorial work; at least



Map 28: Among the mill sites studied in the Russell Reservoir Project Area were Eureka, White, Mattox, Pearle, and Gray-Heardmont Mills.



Figure 167: Entire families worked at Pearle Mill and lived in the community of Beverly where a group gathered before their house. The horn of an old record player can be seen on the porch.

one Black worked as a cook for the superintendent.

Beverly residents shopped at a company store, and also at a pottery shed belonging to George Chandler. People at the turn of the century continued to make ceramic vessels for many uses—to hold molasses, lard, preserves, butter, milk, and whiskey. Chandler became one of the better known potters in the area. Born to farmers in 1853, Chandler hung around pottery shops as a youngster, gradually picking up the skills he would use to help earn a living. None of his four brothers learned how to be potters, but one brother, Oscar David, did help Chandler sell his wares.

A great-nephew, Raymond Chandler, Jr., who lived near Elberton, told researchers stories about the two brothers hauling pottery in a covered wagon on trips that lasted up to a week or more. They peddled the pottery house to house throughout the countryside,

charging only pennies for objects that required hours of work to make. Nonetheless, these earnings were precious. The brothers were concerned about robbers, so they camped some nights in cemeteries where they were unlikely to be bothered.

By 1900, George Chandler had moved to Elberton where he rented a house on Factory Street. Making pots was Chandler's abiding interest, but his wife and children pressured him to accept a mill job to earn a steadier income. He, and three of his children, worked in the mills in 1900, according to the census, although his specific job couldn't be deciphered from the records. Mill work, however, didn't keep him from pursuing his pottery. "Dad was a dreamer," Evelyn Attaway, his daughter explained, "but Mom was a materialist."

Chandler used several shops over the years. Sometime during the first decade of the new



Figure 168: George Chandler was a potter and mill worker in Elbert County. He sold his pots from a wagon.



Figure 169: The shell of Pearl Mill still stood when archeologists examined the site.

century, he began pursuing his art in the brick cellar of a millworker's house just beyond the bridge that crossed Beaverdam Creek heading to Pearle Mill.

Like the Indians so long before him, he found the material for his ceramics near the creek where he dug up great quantities of clay. He hauled the clay by mule-drawn wagon back to the cellar, where he mixed in water. He kept the material moist by covering it with wet burlap until he was ready for the next step.

Chandler began making a pot by slapping the gray, white-streaked clay across a taut wire onto a table, a process his daughter likened to kneading dough. This process removed air bubbles and coarse particles, and made the clay smooth and consistent. Next, he formed the pots on a treadle wheel he pumped with his feet. After the pots dried, he fired them in a rectangular brick kiln. There was a peephole in the kiln that allowed him to check the progress of the firing.

Chandler made a variety of vessels—jugs, churns, bowls, pitchers, storage jars, and later flowerpots, which became his specialty.

When his wife died, Chandler stopped making pottery for a time. Eventually, though, he opened another shop, this time on the banks of the Savannah River, not far from Calhoun Falls, South Carolina, where he moved to live with a daughter. Chandler died in 1934, but residents retained his pottery long after.

Pearle Mill suffered the same fate as many other mills in the area. The 1908 floodwaters reached the mill's second floor, causing the costly machinery to rust. The owners declared bankruptcy, and the mill was sold in a public auc-



Figure 170: The 1908 flood that destroyed so many mills filled the streets of Augusta, Georgia, downriver, with water above a man's knees.

tion in May 1909.

After that, Pearle Mill operated sporadically as it passed through several more hands over the years. A holding company from the Northeast renamed it Beaver Cotton Mills, but the venture had become unprofitable and was permanently closed in 1928. That fall, the mill, which was heavily insured, was gutted by fire and declared a complete loss.

Although textile industries continued to thrive nearby, particularly in Anderson, South Carolina, the 1908 flood washed away most hopes for successful mills near the Savannah River within the Russell area. The river and creeks, the same sources of power that had propelled the businesses, bringing fortunes to some and bankruptcy to others, ultimately destroyed the mills altogether.



Figure 171: As an old man, James Edward Calhoun continued to ride his horse with his man servant along this Millwood Plantation road near the Savannah River. The photograph was taken in 1875.

Chapter 18: The Last of an Era

1865 to 1889

The vastness of Millwood Plantation accentuated a sense of loneliness and quiet as the elderly man and his horse moved slowly down the riverside path. The horse stumbled slightly, then righted itself. The rider seemed not to notice. His face was turned towards the river, which sparkled under bright sunlight. James Edward Calhoun, on his daily morning ride, sat ram-rod straight in the saddle, still maintaining the military bearing of his youth. His man servant, William, followed a discreet distance behind. The clip-clopping of their horses' hooves mixed with the bird calls and squirrels chattering from the woods.

Riding horseback was a good way for the octogenarian to get fresh air, but, more important, this was a way for him to keep an eye on his extensive property. He spurred his horse forward towards one of his mills, for even in old age, Calhoun continued his fervid interest in industry. This was a man, after all, who had named his plantation, Millwood, after a millrace funneling water through a small, dense forest.

Given his fascination with industry, it's not surprising that Calhoun was an early supporter and investor in railroads, or, that before the Civil War he developed a fascination for gold mining, a preoccupation that continued after the war. A map of his postbellum holdings shows a gold mine and two other spots on both sides of the Savannah River where gold was to be found.

It's hard to know how successful he was with the mine. He leased it out in 1867 in what Charles Orser called a "mineralogical sharecropping scheme." Calhoun required the man who leased the mine to buy all supplies and tools from him, and also to pay him two-ninths of any gold found. But Calhoun voided the contract a year later because the lessee had

failed to do the work. Nonetheless, Calhoun found some ore on his land because about two years later he sent what he described as "a lump of pure gold" from his mine as a wedding gift to a friend.

Another enterprise Calhoun tried in an unusually big way, only to be sidetracked, was producing molasses. Characteristically, he used a novel technique. Researchers discovered four brick structures resembling outdoor barbecue pits at Millwood that were apparently used to cook molasses. The four ovens were built over a brick floor and aligned side-by-side. Two of them were shaped like giant keyholes.

Sorghum cane had been introduced to the Piedmont in the 1850's, and by 1855 wide-scale experimenting was underway, with syrup, rum, and other products the result. Usually, the sugary juice was squeezed out of the cane with a rotary press powered by mules. The liquid was then boiled into syrup in long pans sitting over rectangular hearths.

But practices that suited others rarely satisfied Calhoun, who apparently preferred an alternative method called the French Train. This procedure was popular on sugar plantations in Louisiana, coastal Georgia, and the Caribbean; Calhoun may have learned of the process during his naval travels.

However, the procedure apparently didn't live up to its potential at Millwood. Records show that in 1860 Calhoun produced 500 gallons of molasses, but the equipment he had was capable of producing a good deal more if used regularly. The indication that Calhoun didn't use the giant furnaces very often suggests that his sweeping ambitions for mass production had exceeded his reach, a familiar pattern throughout his life.

For all his failures at reaching lofty goals,

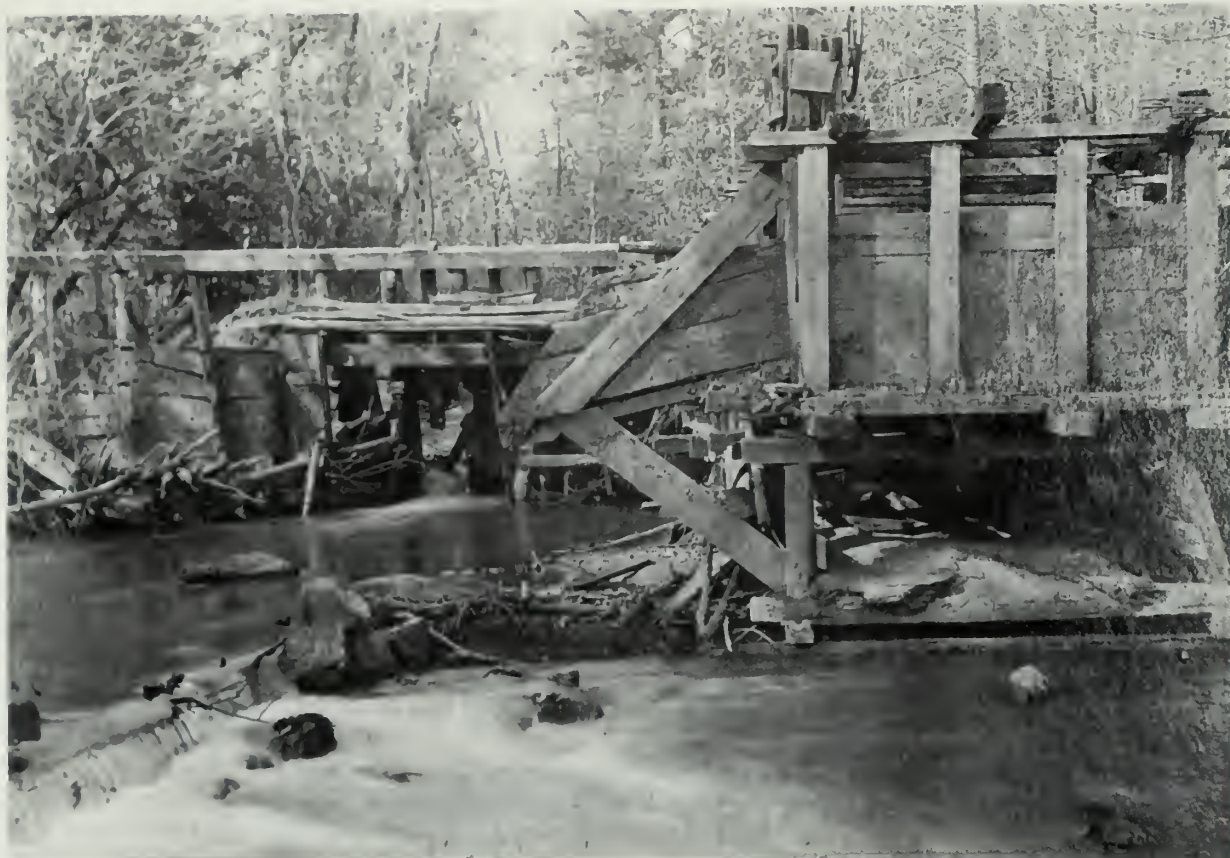


Figure 172: An 1875 photograph captures what may have been a gold mine sluice for one of Calhoun's many enterprises. Ever the entrepreneur, the planter did find some gold on his property.

Calhoun, by 1880, still remained one of the largest landowners in the area. That year his saw mill turned out 20,000 board feet, another indication that he had recovered from the hardships of Reconstruction. He also continued to invest in new construction, contracting in 1877 to build a two-story cotton gin. And while his industrial schemes often floundered, he was wise enough with finances not to get in over his head. He never invested more than he could afford to lose.

As Russell investigators examined the lives of other major landowners who lived after the Civil War, they came across the story of John Henry Grogan, owner of Eureka Mill. Grogan was an itinerant Methodist minister who, between 1870 and 1873, built a home adjacent to the mill and Beaverdam Creek. By his death in 1896, which came soon after he returned from a temperance meeting in Royston, Georgia, Grogan owned over 1,600 acres. He had

earlier donated two acres to Eureka Church, where he preached. (The church is now called Middleton Methodist Church.)

If he was not the first, Grogan was among the earliest to use locally-quarried granite blocks for his house foundation. As others eventually also recognized granite's worth, it became the economic backbone of Elbert County, producing jobs for many. The sturdy stone piers Grogan chose to use supported a one-and-a-half-story house, and, like most postbellum residences, Grogan's house was built with a wooden frame. The frame was covered with wood siding, a technique that gained popularity after 1850 when there were more saw mills to provide finished wood. Rough logs were no longer the only choice within most peoples' reach and manufactured cut nails also became cheaper.

With so much frame housing around, people found new ways to display social status



Figure 173: Millwood tenant farmers ran a mule-driven, rotary press in 1875.



Figure 174: Remains of two boilers, possibly used for a molasses-making method called the French Train, were excavated at Millwood Plantation.



Figure 175: The Harper-Featherstone tenant house was built for slaves.

in the architectural designs and decorations for their residences. Grogan, for instance, used stained glass to outline his front door and painted his house white with green shutters. None of the nearby tenants apparently painted their houses, probably because they didn't own them and didn't have much money.

Investigators from the Historical American Buildings Survey (HABS) examined several tenant residences in the Russell area, including the Harper-Featherstone farm house. Once a one-room, log cabin for slaves, this house was later enlarged to four rooms and covered with board siding. Originally owned by the Harpers, who also ran the local ferry, the house was easily accessible to all visitors.

In contrast, the Grogan House reflected a continuing desire among the well-heeled for privacy, a trend evident in their residences before the Civil War. A protective wall of shrubbery between the house and road, and a front porch, helped screen against intrusions. The house, which was T-shaped with a center hall, had a kitchen and dining room in a rear wing, separated

from the main house by a breeze-way. Distancing the kitchen from the living quarters in this manner protected residents from the danger of cooking fires.

The Grogan House also had three interior brick fireplaces, another postbellum trend for all economic classes. The chimneys of slave cabins and the poorer White residences fell out of favor because they were made of mud and sticks or clay and were highly susceptible to catching fire.

John Grogan's three daughters ultimately inherited the property, which, after 1914, was occupied by tenant farmers. Among the last of Grogan family members to own

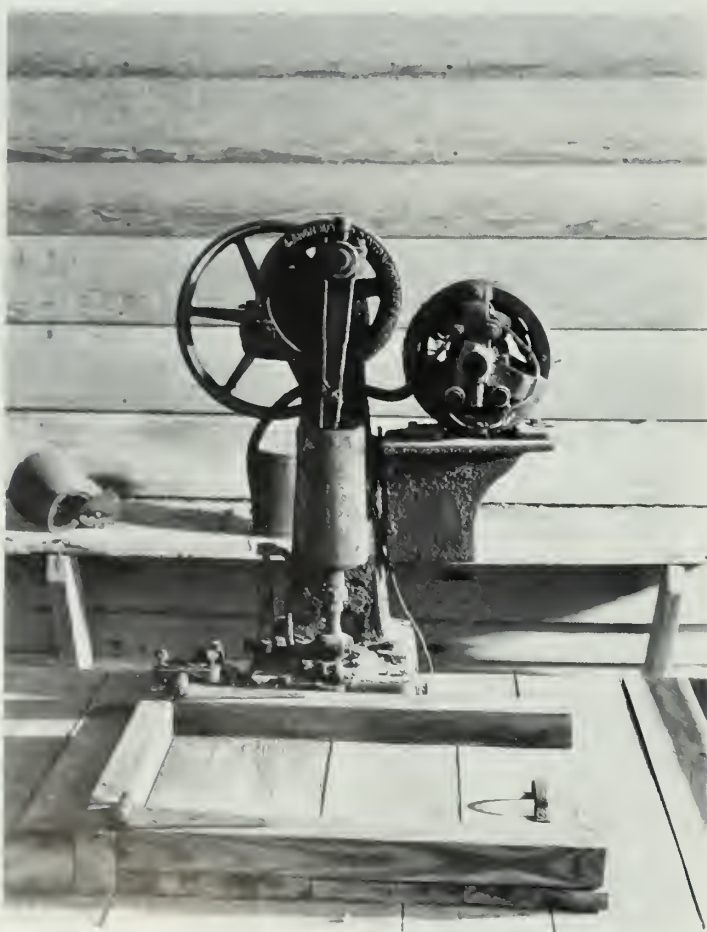
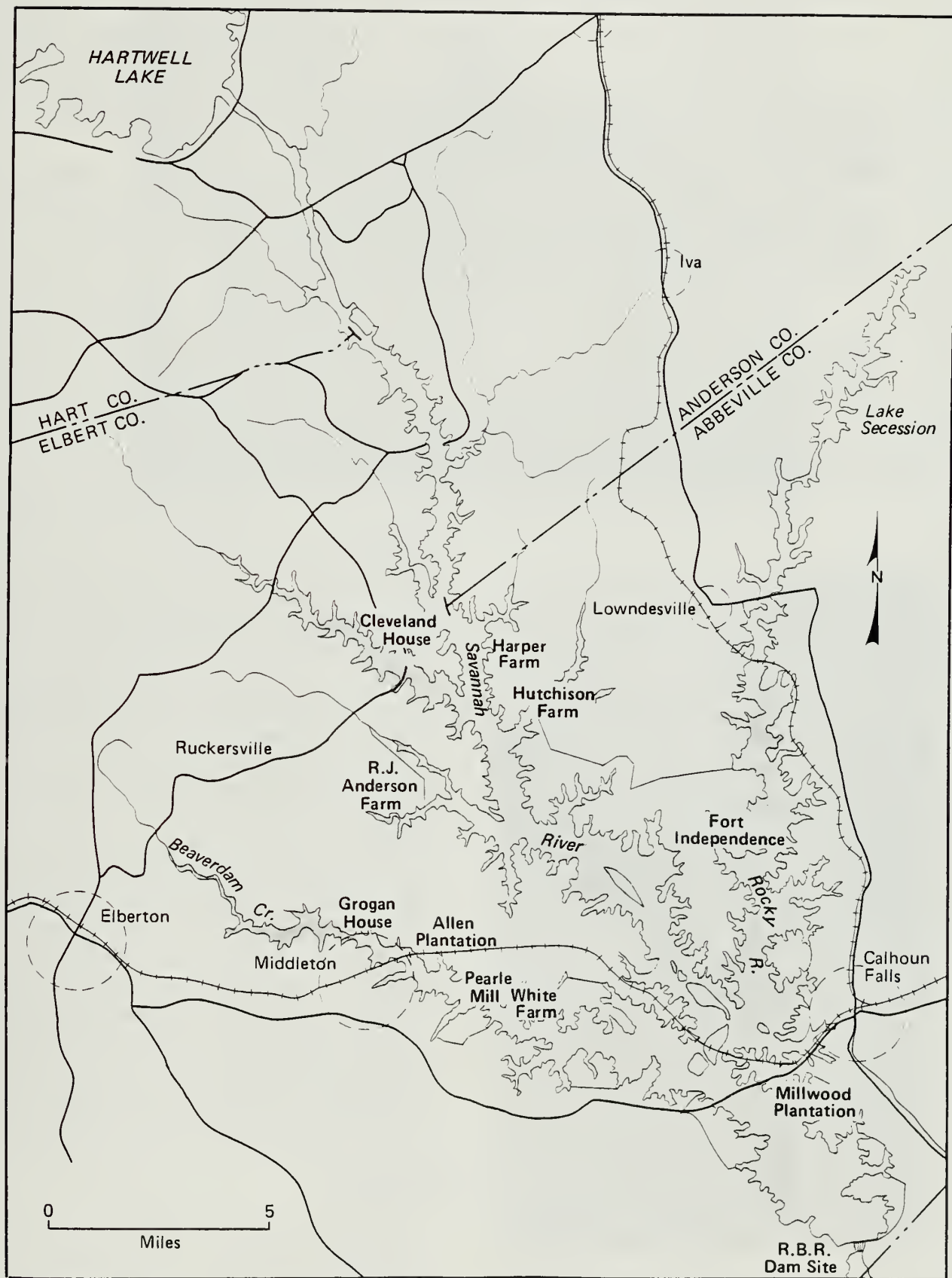


Figure 176: The tenant house well pump was built in a shelter that had a hole in the wall to let the cat in to catch mice.



Map 29: Historic sites studied in the Russell Reservoir Project Area included the Grogan and Harper houses.

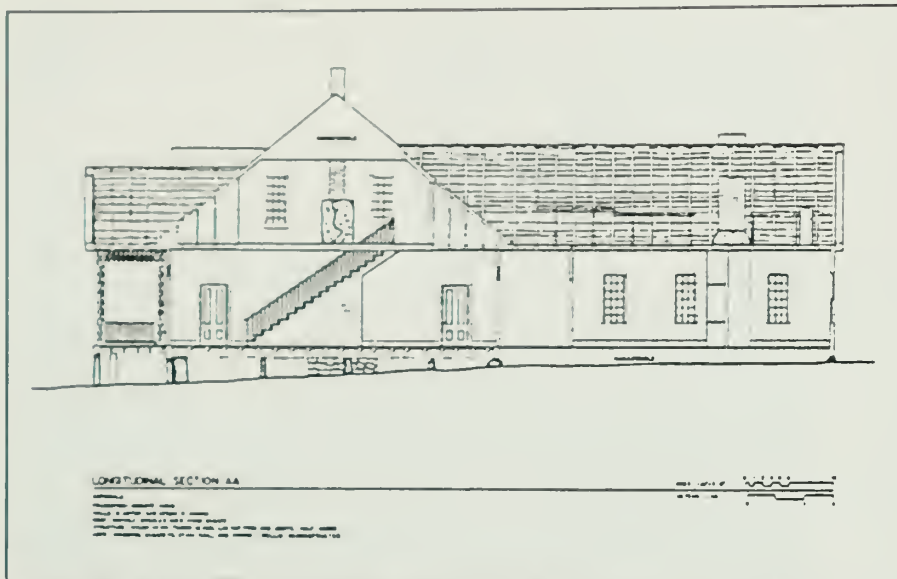


Figure 177: A side view of the Grogan House was one of a number of drawings made for the Historic American Buildings Survey of structures in the study area.



Figure 178: Quarried granite piers supported the Grogan House, one of the first homes where granite was used.

the land was Grogan's granddaughter, Elmira. Crippled from childhood because of a bout with polio, she worked as a writer.

As time passed, with tenant farms increasingly spread willy-nilly over plantations, the tight control planters had exerted over their property before the Civil War vanished. The pre-war philosophy that there was a manifest hierarchy with planters on top was giving way to doctrines of business management. But how landlords

implemented this new thinking varied widely, as evidenced in housing they provided workers. Some tenant houses, though modest, were comfortable and indistinguishable from those built by many small farm owners. There were also tenants who were able to improve and enlarge their rented homes through their own efforts. But others lived in houses that were little more than hovels. For them, existence was not much better than the life of farm animals.

Archeologists were able to demonstrate status differences among landowners, tenants, and overseers in various ways. Dishes, for example, were important findings at Millwood where ceramic pieces were uncovered in the remains of various houses. Calhoun's house excavation, for instance, yielded more types of dishes and containers than any other structure, and also showed evidence of a greater number of dishes. Also, befitting his standing, there were more elaborate decorations on the ceramics that Calhoun used than on any of the tenant tableware.

Between Calhoun's status and that of his tenants were the plantation overseer and Caroline Walker, Calhoun's personal servant, who was a widow and ex-slave. Walker held an



Figure 179: The Henry Grogan House had stained glass around the front door, one way its builder demonstrated his elevated status.

esteemed place in Calhoun's household and lived in a house only a few steps away from his. Some contend she was his mistress, but researchers found no substantiation for that speculation. Walker was, however, one of only two non-relatives named in Calhoun's will. The second item in his will, according to one expert, awarded 150 acres of land "to my faithful servant Caroline Kessler" and her children. Others assert that the will reads "to my faithful servant Caroline Calhoun." All agree, however, that the document refers to Caroline Walker.

Calhoun left another 150 acres to Edward Keiser, one of his overseers for several years. Everything else went to relatives.

A final note of interest about the artifacts from Calhoun's suspected residence was the large quantity of tableware, including plates, bowls, cups, and saucers. However, there was

a scarcity of storage vessels. The plentiful tableware suggests that the so-called "Hermit of Millwood" was capable of and accustomed to entertaining groups of visitors, while the dearth of storage vessels indicates his food was probably stored outside the residence, possibly in the smoke and milk houses.

Calhoun died at Millwood October 31, 1889, leaving behind about 3,000 acres of cultivated land, and about 9,000 acres uncultivated. There were 95 tenants on his property, which shows just how big an operation he still owned. In all of South Carolina in 1900, only 8.5 percent of landowners had 20 or more tenants, so, although his personal estate was valued at only \$5,128, Calhoun died a very rich man. He had witnessed remarkable change in his 91 years, and had done more than his share to bring some of that change about.



Figure 180: The arrival of the railroad changed life considerably in the Savannah River Valley, ending a long isolation from the rest of the nation.

Chapter 19: "Rushing Through the Night"

1890 to 1930

The years between 1890 and 1930 were a time of boom and bust for the Russell Reservoir area. The period began with an event of enormous significance—the coming of the railroads. Major rail lines were laid across the region, connecting east and west through Abbeville, South Carolina, and Elberton, Georgia, and traveling on to Atlanta. Another track passed from Augusta, Georgia, north along the South Carolina side of the Savannah River.

The railroads spawned major change. The Savannah River Valley, virtually shut off from the rest of the nation for so long, quickly gained nearly constant contact with the outside world. The Seaboard Air Line, cutting east to west across the area, linked Georgia and South Carolina in a rail network that tied together Atlanta, Birmingham, Washington, D.C., and New York.

With the advent of widespread rail, the Savannah River lost its importance as a way to get goods to market. Numbers from the time tell the story. In 1900, 23,000 of Elbert County's 30,000 bales of cotton, some 77 percent, were transported by rail. Of the rest, 6,000 bales went to local textile mills, and only 1,000 were shipped by other methods. That so much traffic shifted so fast to the railroads shows just how bad the local transportation system formerly was.

Up until the 1920's, roads for automobiles, trucks, and wagons continued to be rut-filled and sometimes impassable. The situation improved when highways started to crisscross the region in the 1920's as the automobile transformed from a novelty for the rich to a common mode of transportation. By 1927, the Georgia-Carolina Memorial Bridge spanned the Savannah River, marking the beginning of the end for ferry traffic.

That same year, Charles Lindbergh made his historic solo flight across the Atlantic Ocean. Now, for better or worse, nothing could prevent change.

Before ferries became obsolete, however, a tragedy occurred involving a multiple drowning that deeply affected people on both sides of the river. Until 1928, Harper's Ferry continued to be important to local transportation. Robert Morrow, a Harper Plantation tenant farmer, operated the ferry most of the time, but on Easter Sunday 1920, another tenant, Lester Waters, was at the helm. Waters and his new bride, Alice, were entertaining a group of friends and relatives. Late in the afternoon, the group decided to cross the river to visit with more friends on the Georgia side.

The Savannah was higher than usual and especially swift that afternoon, and perhaps the boat carried too many passengers. Whatever the causes, the ferry suddenly foundered in the swirling current and capsized. Ten of the 11 passengers drowned, including the young newlyweds. The lone survivor was a shocked boy unable to say what had happened.

As a way of life revolving around ferry transportation disappeared, a new one centered around the railroad developed. The railroad gave towns a competitive edge over nearby communities without trains. Some towns became more important as a result because they could serve larger markets. Elberton, Calhoun Falls (named in honor of James Edward Calhoun), Middleton, Iva, and Starr were among those towns that flourished beginning in the late 1800's. Heardmont reached its peak sometime later, during World War I.

The town of Lowndesville even shifted its boundaries because of the railroad. Local historian Arnette Carlisle remembered what happened: "The railroad is about a third of a

mile from where the town grew up, and when it came out here to the west of the old town and built a depot down there, then the business firms gravitated toward the depot. We had what we call a 'new town' and an 'old town'. ... 'New town' started building up shortly after the railroad came...the dwellings all came in after 1890, but some of the stores and warehouses began to build up as soon as the railroad came through there. There was a rivalry between the merchants all during the year, 'new town' and 'old town.' Of course, these boys down here at the railroad had the advantage, they didn't have to hire somebody to haul their goods a mile to a half-mile away. One of them even built his store on the side track down there. He could use handtrucks to unload right into the store...We had two passenger trains each way, north and south, each day."

None of the area's small towns mush-

roomed in population, but their merchants did capitalize on a golden moment. Cotton was booming and the towns provided the gin mills. Some of the gins had compresses to squeeze the cotton into compact bales so that trains could carry more bales in less space, lowering shipping costs. The local economy also received a boost when the price of olive oil shot through the roof in 1880. Suddenly there was a market for a substitute—cotton seed oil; both Starr and Lowndesville built plants to fulfill the demand for the newly popular cotton seed oil.

Local merchants became important, powerful figures. The gin mills and other cotton facilities, coupled with the railroad, meant that merchants could sell cotton and cotton products directly from Elberton, Lowndesville, and other nearby communities to outside markets. And the competition between merchants in different communities meant that sometimes,



Figure 181: The Georgia-Carolina Memorial Bridge was dedicated on Armistice Day, 1927, in honor of soldiers killed in World War I. The bridge was christened with a bottle of ginger ale.

if a farmer was willing to drive his wagon a little farther down the road or hold onto his produce just a little longer, he might get a better price. Tenant farmers were no longer quite so dependent on a single landlord as a result. And if they tired of farming altogether, the railroad now offered a quick way to leave and try their luck somewhere else.

All four counties in the Russell area experienced a spurt in economic growth and increased industrialization, but none could compare with Anderson County, South Carolina. There was only one textile mill in the county in the late 1880's, but by 1909 there were 16, with a combined capitalization of \$7 million. Anderson County mills employed 1,000 people who annually processed 150,000 bales of cotton.

The secret to this success was cheap power. The Anderson Water, Light, and Power Company built two generating plants before the turn of the century. By 1906, The Savannah River Power Company had completed a plant at Gregg Shoals, not far from where PaleoIn-



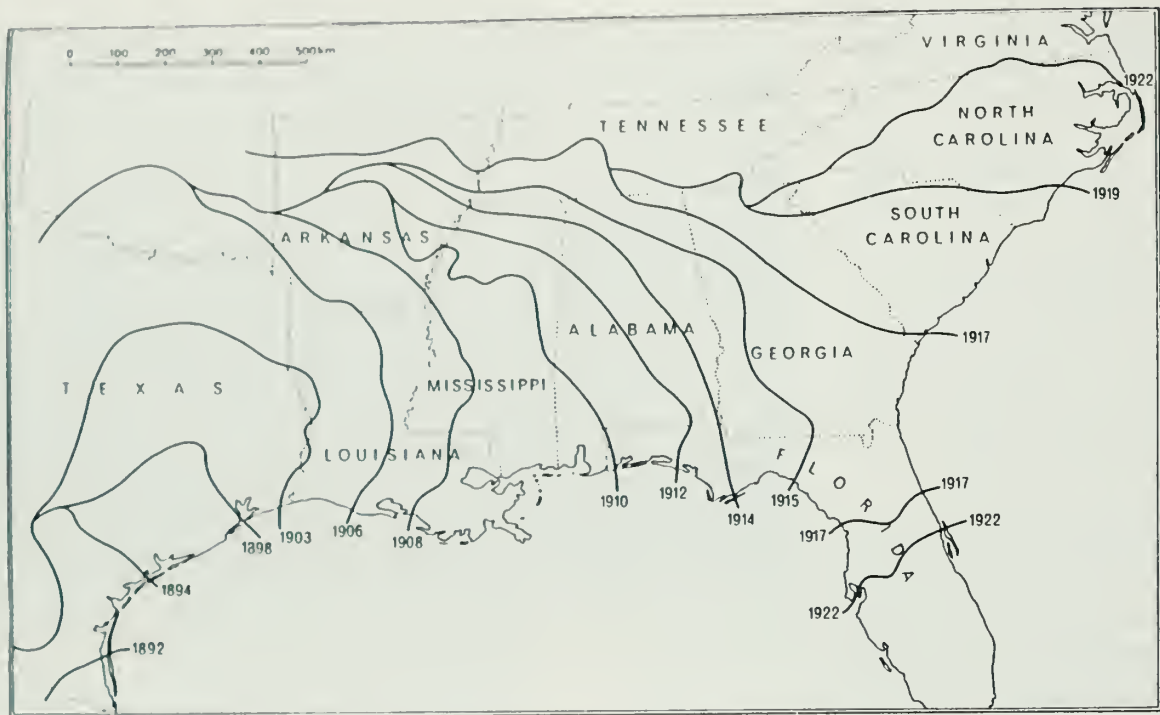
Figure 182: Middleton, Georgia, was one of the communities influenced by the railroad, which provided a new way for merchandise to reach broader markets.

dians left one of their Clovis spearpoints more than 10,000 years earlier.

Low energy costs encouraged industrial development, leading to more farmers abandoning the land for factory and mill jobs. Many of them made the transition just in time to escape impending disaster. Boll weevils swarming up from Mexico reached the Savannah River Valley about 1919. Like millions of buzz saws cutting through soft wood, the weevils devoured cotton crops. The local agricultural economy staggered, and not just



Figure 183: Cotton continued to boom awhile longer, with some of it ginned at Calhoun Mills, seen here in 1930.



Map 30: Boll weevils entered Texas in 1892, Georgia in 1915, and South Carolina in 1917, destroying cotton and lives. The insects ate their way through cotton patches like locusts in wheat fields.

because of the weevils. The soil was exhausted. Years of neglect and erosion led to smaller and smaller crop yields, with farmers having to work harder to produce less. Then demand for cotton slackened, causing a panic among property owners. They booted faithful tenants off the land, while other tenants just gave up and left on their own. Population decline in the region was significant once again, with many Whites moving to bigger Southern towns, and many Blacks flocking to cities in the North and Midwest.

But some stubbornly clung to the land. Jim White was an example. His farm near Beaverdam Creek in Elbert County was originally owned by Bynum Dye, son of the planter George Washington Dye and his slave Lucinda. Jim White bought the property in 1926 and turned it into a thriving enterprise. He succeeded in farming, while others failed, by diversifying. White grew a wide variety of crops and also raised various forms of livestock. With over 100 acres, he owned more property than any other Black, without inheriting it, in the Heardmont community. When

he died in 1956, his four daughters continued to farm, using mules just as their father had.

The McCallas lived on the other side of the Savannah River in South Carolina. They managed to recover from deep financial troubles by being tough and shrewd. George McCalla, described earlier, saw his fortunes plummet after the Civil War. By his death in 1886, he had little money and heavy debts. He had managed, however, to hang on to about 2,000 acres. McCalla's four sons, including John and Isaac, started rebuilding with that inheritance. Isaac, his father's executor, received permission from the other heirs to sell some of the land to pay off debts, for which he also used tenant farmers' rents. Then he started on the long road back to financial success.

By 1894, Isaac McCalla had either bought or was managing his brothers' portions of their father's land, and by 1913, he had almost doubled the plantation from 2,158 to 3,490 acres. Isaac McCalla emerged as one of the new breed of planters who also wore a business suit, a versatility that helped him ride the



Figure 184: The James White House was on land once owned by Bynum Dye. White was a successful Black farmer with more than 100 acres near Heardmont.

crest of economic good times in the region. Among other pursuits, he held half interest in his brother John's business, which included mills.

At his death, Isaac McCalla's land was divided among his three children who apparently stayed in farming and continued to rent to tenants and sharecroppers as their father had. The McCalla family remained a major economic force in the area for many years.

The story of the Harper family goes in a different direction. When the family was last mentioned, Henry, Civil War veteran and ex-prisoner of war, had retired from the South Carolina House of Representatives with his financial affairs in a downward spiral. He died in 1886, and while there was no recorded will, he apparently left what remained of his land to four children. How much property was involved is unclear.

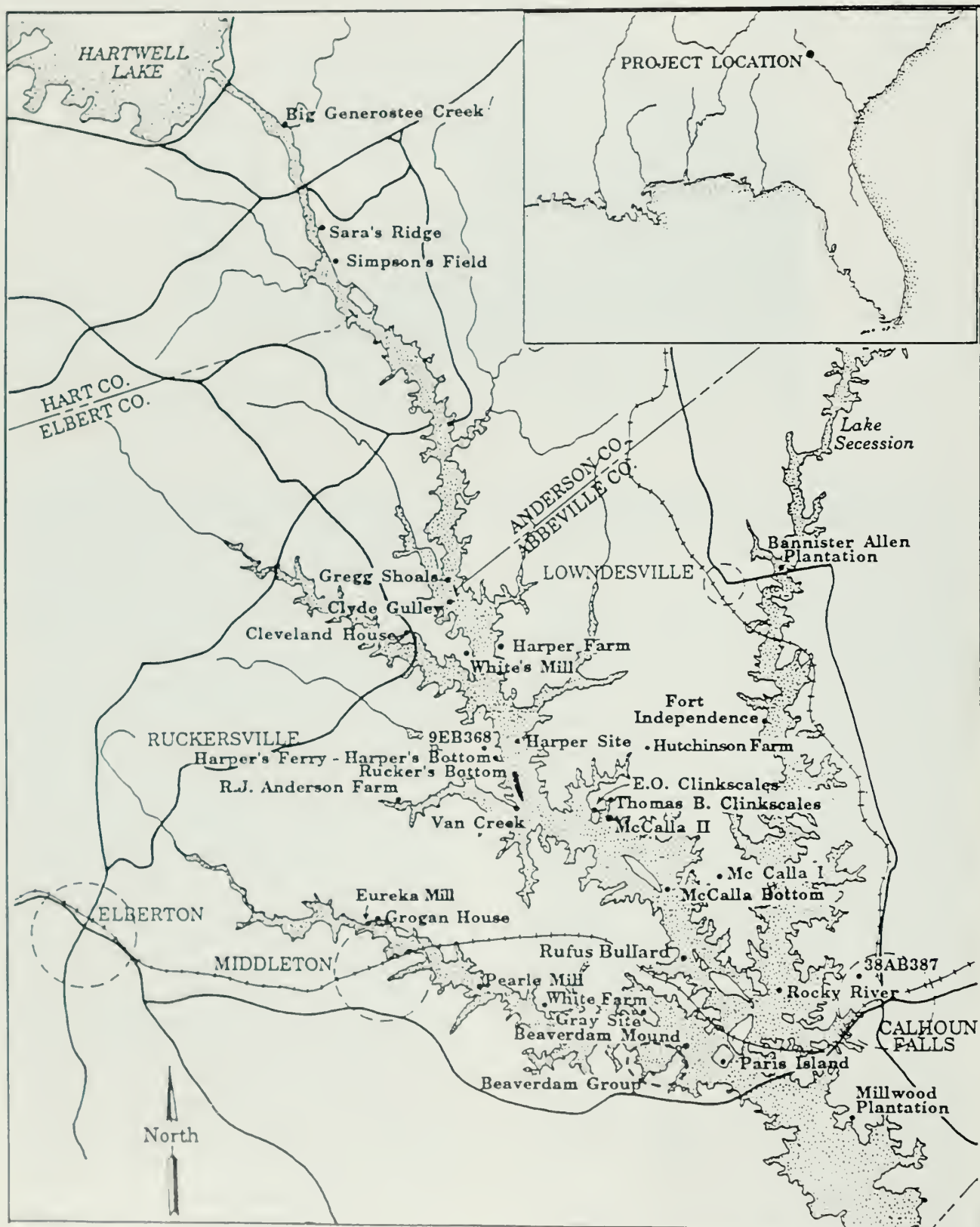
Weston Harper, the oldest son, had, by 1894, bought most of his brothers' and sisters' shares, and owned 1,306 acres worth \$7,250. Weston shared a house with his wife Alice, seven children, his sister Jennie, and his brother Clarence. Weston Harper did well economically throughout the early 1900's. By 1913, he was still financially sound, according

to tax records. But sometime after the boll weevils invaded and the cotton market began to slump, Harper's fortunes tumbled. By 1926, he had lost his farm in court, probably because of debts. Douglas Featherstone bought the property at auction, and owned the land as an absentee landlord until 1979.

The last family tracked through the years was the Clinkscals. They represent the middle-income farmers who once comprised the majority of Whites living in the study boundaries. The first Clinkscals in the area were William Franklin Clinkscals and his wife Lucinda. They arrived in the mid-1850's and settled on about 450 acres in Abbeville County, South Carolina, where they built a house that would be fondly known to three generations as the "Old Home Place."

William Clinkscals struggled through the trials of the Civil War and Reconstruction, but somehow retained his 450 acres. He died at 91 on December 4, 1906, and Lucinda, his wife, died 15 days later. Their estate was divided among eight children and five grandchildren, with their son, Ezekiel, eventually buying all the farm from the others.

Ezekiel Clinkscals lived in the "Old Home Place" for a number of years and continued to



Map 31: Historic sites studied in the Russell Reservoir Project Area were often tracked through several generations.



Figure 185: Three generations of the Clinkscales family lived in a house they called "The Old Home Place" in Abbeville County, South Carolina.

farm, gradually acquiring more land. He even managed to triple the farm's size by 1933 in the midst of the Great Depression. By then, he had 1,316 acres, and his wife Susan owned 500 more. They had one son, Joseph Ezekiel, born in 1913, who died at age 19 trying to save a cousin from drowning in the Savannah River. Susan Clinkscales died four years later, and Ezekiel subsequently remarried. He died after a fall in 1943, not far from his beloved family home.

One of Ezekiel Clinkscales' grandnephews, Henry A. Cook, vividly remembered the farmer and provided details about him and his ancestral home to researcher Marlessa Gray. Cook visited the farm every summer for a month between ages four and 12 when Ezekiel Clinkscales was still alive. The boy alternated between staying at the "Old Home Place" and with nearby relatives.

Cook recalled that fruit was at its best when he arrived in early July. His mother spent time with relatives "putting up pears, peaches, beans, and such things in big Mason jars; in making jams and jellies of the abundant berries and grapes and watermelon rind pickle. The big orchard was loaded with fruit for anyone to pick and eat who wished them. All

were in great variety. Their flavors were delicious and there were no poison sprays to be washed off in those days."

Stories adults told about the Indians who once lived on the land captivated him as a boy, an interest further flamed by the many Indian artifacts scattered around the farm. Indians, Cook said, left "behind all kinds of stone arrow and tomahawk heads, partly buried in the sand, which were a constant stimulus to us to play at being Indians. We had a copy of Ernest Thompson Seton's book, *Two Little Savages*, which was kind of a bible to us. It was filled with drawings and descriptions of all kinds of Indian equipment: tepees, headdresses, moccasins, bows and arrows. Our fervor to make all of these things was limited only by our extreme youth.

"Another favorite and exciting sport for us was to fish and ride in the bateaux in the Savannah River. But that required grown-up supervision. And sometimes we could persuade them to take us across the river on Tucker's Ferry not far up river. Mr. Tucker, the ferryman, also had a sugar and syrup mill down at the ferry landing. We took our family cane down there to be extracted in a mule powered rotary press. It was then boiled down



Figure 186: Besides changing economic life in the region, trains gave residents a new way to travel. Many people left when the boll weevil invaded.

to the desired consistency. Sugar had to be boiled longer."

"...my Uncle Zeke [Ezekiel Clinkscales] took me with him on his tours of the farm where gangs of men were at work in the fields. I rode behind my Uncle on his horse. He was a wonderfully kind and patient man and he became very fond of me, probably because he was unmarried then and had no boys of his own. We acquired a kind of sympathetic understanding that is rare in this workaday world. When my Uncle was too busy to take me, I could play for hours alone about the farm and its interesting equipment...To a young town-bred boy like me,

both farms were endless sources of interest. Both had old steam engines, used occasionally to power the saw mills and sometimes to do threshing. We kids spent many hours playing on them and imagining ourselves engineers, driving them and blowing their whistles.

"There were also the blacksmith shops, with their big bellows to fan the charcoal fires to the necessary white heat to make horseshoes and other implements."

And late at night when the play had ended and the grownups had stormed in to quiet the children, "peace would reign again. Then in the quiet night, we could occasionally hear the Seaboard Railroad trains over in Georgia



Figure 187: A photograph of Calhoun Falls, South Carolina, taken around 1940, shows the railroad hotel at the end of the street. The hotel was part of economic progress brought by the rails.

blowing for their crossings, on their way to and from Atlanta.

"I have long ago decided that railroad engineers are really big kids at heart. They love to play tunes on their whistles as they rush headlong through the night. They strike a tremendous response in the hearts of small boys, lucky enough to hear them on a dark night."

Ezekiel Clinkscales died in 1943, and the

farm was divided between two nephews, Ralph and Ray Clinkscales, the next year, as World War II was beginning to draw to an end.

Eventually, the "Old Home Place" was owned by absentee landlords. A hurricane damaged one of the chimneys in 1976, but the house remained intact. Then, in 1977, after some 130 years of figuring so prominently in the lives of three generations of a family, the house burned to the ground.



Figure 188: The faculty of Harbison College, Abbeville, South Carolina, was photographed in 1894. The Black school, sponsored by the Presbyterian Church, was the center of controversy and tragedy.

Chapter 20: Mother to Daughter, Father to Son

1890 to 1950

Minnie Walker, 89, retraced her life as she walked along an old dirt road at the former Millwood Plantation. There, in wood buildings long since gone, she was born, married, and gave birth to her children, just like her grandmother before her. They were "Calhoun people," she explained, a tag that stayed with her family long after the Civil War ended the slavery that bound them to James Edward Calhoun.

Working in scorching heat in cotton fields, wearing out new shoes as she danced to a fiddle, carrying a basket of food her mother prepared for the sick, these were some of the memories that seeing her old home place revived. Her recollections, along with those of many others, form one of the last undertakings of the Russell studies, a collection of oral history from elderly Blacks living in Elbert and Abbeville Counties.

Unlike James Edward Calhoun, whose life was well documented through his diaries, letters, and legal documents, the stories of "Calhoun's people" and most other slaves and their early descendants went largely unrecorded. Genealogies, historians' mainstays, were sometimes limited to just a few generations because slaves could be taken away from their families and never see them again. Minnie Walker explained that she never knew her grandfather because he was sold away from Millwood to another planter seeking a male slave to be used "like a breeding horse."

Also, Blacks customarily took the name of slaveowners, which could further erode familial links. Because they were often purposely kept illiterate, few slaves learned to inscribe family Bibles with marriages, births, and deaths. If they were mentioned in legal documents, such as property inventories, it was often only by sex and age with names omitted.

Even as late as the 1950's, Southern Blacks were required by law to receive a separate education from Whites, and this was usually an unequal education. Before that, well into the 1900's, school for Black children in the South was often limited to only three months of the year. And if they were ill-prepared to write about themselves, Blacks were also usually overlooked by Whites recording community news.

But the will to pass on knowledge from one generation to the next was often strong, and persisted in Minnie Walker and others who welcomed the opportunity to share their memories with investigators. Dozens of people were contacted and interviewed. Several individuals talked at length with researchers conducting separate studies, beginning with The History Group, which wrote an overview of all history in the area, and ending with Eleanor Ramsey, Patricia Turner, and Shirley Moore, who were concerned primarily with Black history.

Conversations usually occurred where the people lived, although sometimes site visits were made to stir recollections about specific places like Millwood. Ramsey and her researchers scoured local newspaper archives and other publications beforehand to find some topics for discussion; they further jarred memories by showing the residents old photographs, steadily accumulated by copying those owned by the people they interviewed.

The exchanges between researchers and their subjects were far reaching, depending on each person's experiences, but life's universal themes of family, work, education, recreation, religion, and friendships were recurring subjects. There were also issues pertaining to specific events in the two counties, some controversial and still unresolved decades



Figure 189: Eleanor Mason Ramsey interviewed four generations of the Davis family, life-long residents of Elbert County, Georgia. Randolph Davis, 110 years old at the time, sits beside her.

later. For many, coaxing cotton out of the earth was one of their earliest memories because they had come from mostly poor families in which everyone worked, including children.

The land they farmed rarely belonged to them, but was rented from White landlords who either took part of their crops as payment or cash. Both Minnie Walker's stepfather and husband paid with cotton to farm at Millwood, which Blacks called State Lands, shortened from Estate Lands. She remembered each of them giving a 400-pound bale to the overseer for Patrick Calhoun, James Edward's nephew who managed Millwood after the elder Calhoun died. The cotton was first freed of seeds at the gin in Calhoun Falls: "Cotton buyers come in from somewhere and buy up the cotton. The gin man just had cotton stacked all around, all around. And this buyer come in and they put the cotton then on a freight train.

Wasn't trucks and things to carry things like there is now," she said.

Months of hard field labor often resulted in little financial reward, and even losses, because the tenants couldn't repay landlords from their meager cotton profits for supplies they had borrowed.

Phoebe Turman's family moved when she was 13 across the Savannah River from South Carolina to the southern section of Elbert County called Flatwoods. They were seeking better land, which they farmed as a "third patch." "You get a third of everything you make—potatoes, cotton, corn, everything...and then you settle up, and if there is anything left for you out of your third, then you gets that. You come out in debt every month," she explained.

Work in the mills after crops were planted and harvested helped many families, Black and White, survive. A few Black men operated

ferries, but those jobs disappeared when bridges replaced the boats.

Farm life, never an easy way to make a living, was made even more difficult by the years of over cultivating which had sorely depleted fertility. Charlotte Sweeney described the unyielding soil her father tilled near Calhoun Falls: "He couldn't raise nothing on it...too poor to raise a fuss on, couldn't even raise a good argument on it!"

Horses and mules were essential to farming in the days before tractors. How many animals were available to pull plows substantially determined how many acres were tilled because the only alternative was breaking the soil by hand. The description "a one-horse farm" evoked a familiar picture of a small, family endeavor in the rural South. Randolph Davis, at 110 the oldest person interviewed, explained how much a single horse was worth: "I give Albert (Dye) a thousand pounds of cotton for one horse."

Sometimes, despite having a good crop, Black farmers still failed to make a profit because of unscrupulous landlords. Randolph Davis recalled one who demanded all of his sharecroppers' cotton, rather than only a part: "...Made everybody on that place bring their cotton up there, about ten or 15 bales, and he took every bit of it. I had two bales of cotton. I didn't get a dime and I left."

A dishonest gin operator deliberately under weighing their cotton was another dilemma sharecroppers sometimes encountered, but farmers devised their own schemes to combat that kind of fraud. Explained Rufus Bullard: "You could weigh a bale of cotton there today and lay it out at night and take it to town tomorrow and it might gain five pounds due to mois-

ture. Other people got money the best way they could. They commence to make cotton, sell it by the basketful to somebody else...keep [the gin operator] from it."

Against another obstacle, Bullard said that all farmers were equally disadvantaged. Infestation by the boll weevil meant mutual disaster: "And it was 19--I think '21 or '22. I tell you, the weevils hit this country. We burned the crop squares to burn the grubs, keep the weevil from hatchin'...Well, they hit this country and everybody made a shorter crop...and the people went broke, all the merchants...they was looking for 45 cents [per pound] for cotton, no 50 cents, and everybody was holding their cotton...and it went down to five cents...and everybody just had to quit." Across the South, farmers, including many Blacks, deserted the land. The Bullards went to Chicago for five years where Rufus Bullard's father worked for the railroad.

The mass exodus concerned some influential Whites, including the editor of *The Elberton Star* newspaper, who wrote on December 15, 1922: "The fact that a great many colored laborers have left Elbert County is a serious



Figure 190: Town jobs were welcomed by struggling Black farmers. When they could get hired, they worked in an Elberton tire factory, shown here, or at granite quarries.

problem. They have gone north, east, and west. Many of them are worthy and have the respect of both races. Why have they gone? In some instances, it may be that the landowner could not or would not furnish rations. If he could furnish rations, it seems short sighted not to do so, for if the exodus continues where can the landowner expect to get laborers?"

Some landowners solved the labor dilemma by using Black convicts, including women, in a system rife with abuse.

Efforts to keep the next generation of Blacks on the farm and in the South extended to some of Elberton's Black leaders, who in 1925 organized a farm worker's club for boys. This move was endorsed by the county farm agent and the newspaper, which stated, Blacks "are making progress in the conduct of farm work along improved scientific and business methods."

Reverend Janie Hampton's father, who

farmed Millwood property, was especially adept: "...really wasn't anything around the farm he couldn't do. He used to get farmers' magazines...He was just apt at learning things...He had an orchard...He had different kinds of peaches. He had red peaches, then he had a real sweet white peach. And then he had apricots, plums. He used to graft trees and make them grow, you know, mixed fruits."

Another Calhoun tenant, Minnie Clark, described a pattern of mutual support among farmers that eased the burden of manual labor somewhat. One farmer might be experiencing trouble, she explained: "...say his cotton might get a little grassy. Now they worked together, take their whole family, and families get together and chop his cotton out. And the next day, they'd go to another [farm] and that's the way they worked."

Among early Black property owners, the majority inherited land from White ancestors.



Figure 191: Loading and unloading luggage and cargo from trains at the Calhoun Falls, South Carolina, train depot in 1920 was one of the low-paying jobs available to local Blacks.

But not all. Hampton's father was among those who eventually bought a farm, which caused him ill-will from Whites: "And then it had gotten around. People knew that he had bought. And they figured he was planning on building and they just wouldn't be but so nice to you if they thought that you was trying to help yourself...They took more rent from you than you were supposed to pay... whatever they said you owed, you just had to pay it."

Edward Brownlee recalled an episode involving Blacks and Whites that was markedly different than Hampton's experience. Gilbert Gray, he said, was buying a farm from the Verdells, who were White. They charged him \$100 a year. On several occasions when Gray was unable to pay in full, they canceled what was due as paid. Gray ended up paying only about half the agreed-upon price of \$1,000 to buy the land.

Brownlee's own parents farmed Elbert County land in the Heardmont community inherited from his great-grandfather, George Washington Dye. Dye was the White slaveholder who raised nine children with Brownlee's great-grandmother, Lucinda, whom Dye bought as a slave. Brownlee, like so many Blacks, eventually left the South, but for an education, not a job; unlike many others, he eventually returned. He earned two masters degrees from Columbia University in New York then returned to Elbert County and taught public school until retirement.

Despite the many physical and economic hardships Black families endured, providing an education for Black children was a driving ambition for many parents. Early Black schools were usually affiliated with churches and often represented financial sacrifices for



Figure 192: Edward Brownlee, center, was a soldier during World War II. He is shown with Marie and Floread Norwood around 1943.

students' parents, who sometimes supplemented teachers' pay to lengthen instruction past the allotted three months. Charlotte Sweeney's parents paid one dollar a month for her to continue studying with a tutor the rest of the year, while Grace Reynolds boarded with an aunt in Calhoun Falls so she could attend Mr. Lee's School, also called the Calhoun Falls Mission School. For most young Blacks, however, education ended with only abbreviated primary schooling.

Such a short school term was also a burden for Black teachers. Minnie Clark explained that teaching with a salary of \$35 a month for only three months of the year was insufficient to pay her bills. She was forced to move to Atlanta to work as a maid for some years to support herself.

Northern Presbyterians, who considered the South a missionary field, sought to rectify the education lapse by establishing a Black boarding school in Abbeville in 1885, offering ten months instruction in primary and secondary grades. Their well-intentioned efforts, however, led to unforeseen tragedy. Ferguson-Wil-

liams Academy, named for the school's founding ministers, eventually became Harbison College for Colored Youth when the ministers could no longer financially support the effort. Samuel P. Harbison of Pennsylvania, a wealthy White member of the Presbyterian's Board of Missions for Freedmen, bought 18 acres on Abbeville's outskirts, where the school was moved. He later donated 47 acres more, as well as cash to support the effort.

Co-educational, the school offered liberal arts, and industrial and agricultural instruction. Harbison wasn't a college in today's context, but a combined elementary and high school. Rules were flexible about paying tuition, with many students working on the school farm to help pay costs.

Ursula Mae Haddon, who graduated in 1909, remembered an understanding attitude among the administrators concerning the students' lack of funds: "...say you chipped in a dollar...it was in your reach...We all who attended the school liked it. We were proud of it; we were glad to get to school. Maybe our parents didn't have the opportunity. I'm sure mine didn't. I had the opportunity. I tried to avail myself."

Operated apparently uneventfully for ten years by a Black Northern minister, Reverend Thomas A. Amos, and an all-Black faculty, the school somehow got caught up in the fears and hatred many Whites still harbored towards Blacks. Harbison College became the focus of controversy that ended with Amos' resignation. In a front-page article in *The Abbeville Press and Banner*, Amos cited jealousy from his predecessors' friends over his success as the cause of damaging rumors circulating in the White community. One rumor named him as an organizer of Black labor resistance;



Figure 193: Harbison College, shown around 1890, was built by Presbyterians for Blacks. A wealthy Pennsylvanian donated the land outside Abbeville.

another claimed that the Black students were armed. Vehemently denying both reports, Amos added: "I have positively done nothing to merit the ill will of the White people and I would not be able today to name a single White man in the town or in the country to whom I could feel justified in feeling unkindly."

Soon after, the school closed for some months, and the newspaper announced the appointment of a new principal, C. M. Young: "The agitation of the race question has awakened and intensified the race prejudice which seemed dormant or which had not until recently come to the surface in a pronounced form. The president of the Harbison college is a native born negro, and one who seems to be acceptable to a majority of our people...His predecessor was a Northern negro, who was objectionable to some of our people."

The maelstrom surrounding the school, however, didn't subside, and when a fire destroyed one of the buildings in January, 1907, the principal wrote a newspaper letter quelling talk that arson was involved. Rather, he wrote, a defective flue and wood stove

were at fault.

But a later blaze was indisputably deliberate. An arsonist set two fires at the school on March 17, 1910. The fire killed three boys and severely injured several other students and a teacher. Minnie Clark, a student at the time, witnessed the blaze: "I was there when the building caught fire...it's a good thing I had my pack on...like to got burned up."

The next day, a mass rally was held in Abbeville to condemn the arsonist and to raise a \$300 reward for his capture. Despite the show of White support, the school closed permanently and the board of directors began searching for another community where they could start over. Prominent, White Abbeville citizens circulated a petition urging that the school stay, but the directors declined, explaining that with the arsonist still at large the risk was too great for the students. No arrest was ever made.

The school reopened in 1911 in Irmo, South Carolina, as a male-only agricultural institution that operated until 1958.

Nor did Elberton escape racial tension stirring throughout the South. From 1922 until 1925, the city's newspaper printed stories and advertisements announcing Ku Klux Klan marches, movies, and rallies, one featuring the Elberton Municipal Band. The paper also printed an article about lynchings in the South, using statistics compiled by the Black Tuskegee Institute, which counted more than 70 hangings of Blacks in three years. The hangings were provoked by such actions as "trying to act like a White man and not knowing his place."

Religion was a solace during these troubled times, and also a comfort during better days. Black churches provided a strong sense of community where everyone was welcome, even when no building existed for services. Phoebe Turman recalled: "I used to hear the older heads [people] say they would have a place to go to serve the Lord...sing and pray...it was a big, old oak tree...big, old, nice, shady oak tree...that was their church...."

And after they built churches, traveling to services in caravans helped forge friendships. The long rides were memorable events for Lillie Pressley: "Now I remember, all along in those days...you go to church in the wagons...Now, we took those mules and hitch them to the wagon...and went to church that way. It was fun in those days...Sometimes it'd be two and three wagon loads of people in the road...All right on up the road the other wagons join those wagons, and that's the way we went to church. We had about five miles to go to church."

Parents instilled the importance of religion in their children in many ways. Children were honored by churches with their own day every year, an especially fond memory for Lillie Pressley: "All the children [would] be dressed in their little new suits and things...and they had a trunk full of food. We, all the children,



Figure 194: An unidentified girl in Elberton was photographed around 1918. Traveling photographers, called drummers, went from town to town, set up shop, then moved on.



Figure 195: Louella Walker holds her father's fiddle. He taught himself to play on an old sardine box he made into his first instrument. He often entertained at festive "hot suppers".

had to speak and sing. And they just had a big program all that day, just the children."

Edward Brownlee's father told him of a similar experience: "They would go in one-horse wagons and most times they would be pulled by oxen or they would ride on the oxen's back. They'd cook trunks of food so that the kids would just have all kinds of food."

Building a community spirit and nurturing friendships—and sometimes romance—were further accomplished in social gatherings called hot suppers. These were evening celebrations popular in the late 1800's and early 1900's during cooler months. Women and older girls cooked their best dishes for the occasions, items which they sold for small sums during the breaks between lively dancing to the music of fiddles and guitars. Sometimes, males were required to buy some tidbit of food for their dancing partners. But for

Minnie Walker, food wasn't the main attraction at the hot suppers, dancing was: "Me and my sister [would] be down there dancing! Sometime momma went to the store and bought us some shoes, [we] went right round there and danced. Went back home with holes in 'em. Lord, if momma didn't get us. We used to dance and everybody wanted to dance with me and my sister."

Often playing the fiddle was Louella Walker's father who made his own first instrument. One of his later fiddles was among Louella Walker's most prized possessions years later: "...he always said he made his first fiddle out of a sardine box....He learned to play himself....He just made his fiddle out of a sardine box and took his thread and made him a bow."

A more somber topic also received attention in the interviews. In the mid-1800's, death posed a significant financial burden for

poor Blacks, a burden they wished to spare survivors, so they organized burial societies, which continued well into the 1900's. Members' only obligation was to pay 25 to 35 cents monthly into the treasury.

Janesta McKinney, a Black funeral home proprietor in Elberton, explained that when a member died: "...they were entitled to about the poorest burial you could get...the family would add a little more to make it more presentable."

Membership in such societies wasn't for everyone, however. Henry McIntire's mother didn't join one, but she did provide for her funeral: "...she saved just enough to bury herself...she didn't want us cryin' two ways—cryin' when she gone, and cryin' with the way she got put away," he explained.

Although a financial burden for many, death gave some Blacks opportunities to better their lot. For example, Janesta McKinney's father-in-law, Reverend Addison Reynolds McKinney, was one of the first Blacks to start his own business in Elberton in about 1910. Working in the granite quarry, he saw a pressing need for a funeral home for Blacks.

As Janesta McKinney explained: "They [White funeral directors] buried you at night...you had no preference...that's why they opened it [the Black funeral home] up...for convenience of Black people. And I think they were very reasonable 'cause a long time ago people didn't have any money. And they [her father-in-law's business] would open accounts for you and you pay by the month."

McKinney's first hearse was drawn by horses, which probably belonged to his Black

partner, John Rucker, who was also a blacksmith.

Addison McKinney pursued other ventures as well, running a grocery store and a restaurant, which was necessary, explained Janesta McKinney because: "Really wasn't too much you could make doing one thing, you know."

Tobe Wells, however, managed to become successful with only one enterprise. He had learned how to operate a saw mill as a boy of 15 by watching others. Eventually, a White lumber mill operator gave him a portable saw mill outright because he was pleased with Wells' skill with the equipment. Wells recalled his benefactor's exact words of some 40 years before that had changed his own life dramatically: "'Go ahead. You can move it [the saw mill] anywhere you want. It's all yours. Do anything you want to do with it.'"

Wells transported his mill wherever he could find lumber to cut, primarily in Elbert County, but also in Abbeville County and other places. For awhile, after World War II, there was enough demand for lumber for Wells to hire a crew of 22 Black men, many of them war veterans, and to pay them 50



Figure 196: Tobe Wells made a split-oak basket for investigators, demonstrating a fading craft once commonly practiced in the region.

cents an hour, ten cents more than the going rate.

He had learned early in life by helping his father sharecrop in Lincoln County, Georgia, that little profit could be made farming, and despite only a fifth grade education he achieved financial independence: "I learned by experience, workin', talkin' to different people, goin' here—I go some of everywhere—anything goin' on, I go."

Wells mastered making split oak baskets the same way, by watching and trying, and he was willing to pass on his knowledge to others. Representatives from the U. S. Army Corps of Engineers Savannah District spent a day video taping Wells demonstrating basket weaving, once a common practical skill that has become a vanishing craft.

Like Tobe Wells, who enjoyed a monopoly with his saw mill for awhile, two Black men for a time were the only barbers in early Calhoun Falls, South Carolina. Oliver McIntire operated a shop for Blacks in a section called Buck Nellie, while Spearman Edwards Reynolds chose to serve only Whites so that he would be acceptable to them. This restriction excluded even his own family, according to his wife Grace Reynolds, who told researchers: "...he thought he could make more [by cutting only Whites' hair]....He wouldn't even cut his childrens' hair!"

Segregation touched nearly every aspect of Black life and persisted in the South for many years. The many inequities people suffered because of their color still stung years later. Henry McIntire recalled working for about six dollars a week at the cotton mill in Calhoun Falls: "...we [Black employees] couldn't go up there to that drinking fountain and drink no water...we had to first get a bottle and go downstairs. We couldn't even go to the bathroom up there."

Yet, amazing for the time, intimately serving both races was tacitly sanctioned for another Black, Dr. James Thompson. He was born in 1873, the son of Lloyd Thompson, a former slave who owned land in Elbert Coun-

ty. The younger Thompson attended Brown University in Rhode Island and Shaw University Medical School in North Carolina before establishing his practice in the Elberton bank building where White doctors also had offices.

While he was accepted as a physician by many White patients, Thompson courted the enmity of other Whites by fighting for equal rights for members of his race. Before he left for college, in one example, he stole the answer sheet to an examination that Whites were using to impede Black students, Edward Brownlee told Russell investigators. Thompson, who was never caught, shared the answers with other Blacks, and their scores rose dramatically.

Another of Thompson's acts later set him at odds with White landowners. As a physician, he apparently refused to endorse insurance policies authorizing landowners to collect money for incapacitated Black tenant farmers, which Thompson considered a continuation of viewing Blacks as property. His refusal effectively ended the payoffs, but his resistance apparently marked Thompson as a troublemaker to some. Still, others continued to prefer him to White physicians, and his mixed practice flourished.

The doctor's violent death still remained a sensitive topic in the Black community 60 years later, interviewers found. Thompson was shot in the chest by a White doctor in 1915. The man who killed him, Dr. A. S. Oliver, was arrested and tried for murder. Oliver, whom *The Elberton Star* said appeared to have been drinking the day of the killing, claimed that the shooting was accidental. He said that Thompson was considering buying some of his equipment because Oliver was retiring, and that among the items was the gun. The weapon, he said, discharged by accident, striking Thompson, who died soon after.

There were no other witnesses, and on the strength of Oliver's testimony the jury returned a not-guilty verdict after less than an hour. Calling the doctor's death tragic, the newspaper described Thompson "as one of the



Figure 197: Black midwives were trained using dolls in 1950.

most prominent men of his race in Elbert County. He was generally regarded as a leader...and was accumulating money. He owned considerable property...."

Medical care provided by Blacks wasn't restricted to Thompson and other doctors. Black women served as midwives, an occupation that drew Annie McIntire and Minnie Walker. Walker first became interested in helping deliver babies when she worked as a housekeeper in a hospital: "...See, I was always a person who wanted to know things....I got books and I studied books," she said.

Caring for one another was also a function of Black social clubs. The Good Samaritans, Eastern Star, Masons, and Odd Fellows claimed hundreds of members, and their meetings and socials strengthened ties and nur-

tured leaders. For some clubs, an annual march and celebration was the major event of the year that rallied members in a show of unity. Lillie Pressley: "...they had big turn-outs, you know....Just like they're going to have a turn out at, say, at Mt. Calvary. They'd march from here to Mt. Calvary. All would be dressed in black suits and white shirts, and white gloves."

But as things slowly improved financially and racially for Blacks, the importance of such organizations gradually declined. Lillie Pressley remembered the heyday of social clubs when they were instrumental to the welfare of so many : "...they help people when they're sick and things like that. But just like I'm saying, it's not as strong as it once had been....Back yonder, when times were hard, they were a lot stronger."



Figure 198: Peter Bertoni, wearing a derby, stands with his young son Tom before the Elberton Granite and Marble Works in 1903. Bertoni helped start the granite industry, which still exists.

Chapter 21: A Binding Thread

1930 to Present

In some ways, the actions of human beings haven't changed all that much over the thousands of years studied in the Russell research. People still cast their lines into the Savannah River to catch fish for cooking over an evening campfire. And farmers still optimistically plow the soil nearby, plant seeds, and trust the sun and rain will do their parts to make the harvest a good one. Even turning stone into useful objects continues all these centuries after PaleoIndians chipped rock into spearpoints in the Ice Age.

Such pursuits shared over countless lifetimes form a binding thread in this story of a region, and in a larger sense, in the story of people everywhere. By focusing intently on residents and landscapes in four Southern counties, researchers have provided a portrait with features shared by other people in other regions. Although much of the information uncovered applies only to the places described, enough is universal to provide insights about our common human past.

Today, more than at any other time in its long history, the reservoir area and its people are so closely stitched into the collective national fabric that many unique characteristics have grown far less discernible. Just as modern transportation, television, and other technologies, for all their benefits, have dulled the distinctive flavor of communities across the United States, they have had the same impact along the Savannah River. This loss of a strong sense of place makes the efforts of so many to document what came before all the more worthwhile because they have preserved a fast-fading part of our national legacy.

Some factors of change in the region, however, aren't as broad based, particularly the dramatic shifts resulting from the decline of cotton. The national economic depression,

the relentless assault of the boll weevil, and widespread soil erosion from disastrous farming practices were some of the causes for families to give up land they and their forebears had tilled for so long. But progress also played a role in displacing people from the land, progress in the form of machinery capable of work that once took many hands to perform. A similar pattern took shape throughout the South. From 1950 to 1978, for example, the number of agricultural jobs in the South declined by more than half, according to historian Charles P. Roland.

Yet, farming by no means stopped in the region. Rather, profits soared from some crops and livestock that took the place of cotton in a new diversified approach to agriculture. But gradually, more and more land fell into fewer hands as agribusiness, with all the vast acreage and sleek machinery that the term implies, replaced small family farms. Statistics show the scope of the transformation. In 1930, there were 16,605 farmers in Elbert, Hart, Abbeville, and Anderson Counties. By 1974, there were only 2,725 left, a drop of 83 percent. During the same time span, Abbeville County lost 85 percent of its farms, while farms 99 acres and larger increased from 18.2 percent to 63.2 percent of all farms.

Tenant farmers who comprised so much of the area's population were affected most by the change from small farms to big ones. Looking again at 1930, there were 12,466 tenant farmers in the four counties then, compared to just 127 in 1974, a drop of 99 percent.

Rufus Bullard watched as a way of life came to an end. "I tell you, and this comes down to facts: Farming had sort of played out, was on its way out...in the 1940's. It was on its way out. You know, people was quitting



Figure 199: Katherine and Bandon Hutchison demonstrated how to make a broom with straw they collected in their fields. They continued farming long after many of their neighbors quit.

like they doing, and there wasn't too much farming. It was going to grass and cattle and stuff.... Yeah, farming was on the downswing. And it ain't picked up. It's just continued going out. You see, I'll tell you what really happened: [the government] paid the landowners so much money to get out of production—cotton and such stuff—that the tenant farmer didn't have anything to go on.... We had lots of people who hung around their houses [on tenant farms] for a long time. But, you know, they finally had to get out and find something."

But if the decline of cotton farming hurt many, the land often benefitted. The ugly scars of eroded gullies that formed when top soil grew exhausted and washed away gradually healed. Trees and undergrowth, especially the amazingly profuse kudzu vine, sprouted across former fields and homesites, eventually covering them so completely that some places became unrecognizable, even to former residents.

Grains often replaced cotton as the dominant crops for those who remained on the land

or took over from others. Wide-scale tree farming also developed. Much of Millwood Plantation, for example, was planted in trees for use in paper manufacturing after a subsidiary of Duke Power Company bought the land. Adjoining acreage and thousands of acres more in Elbert and McCormick Counties, which belonged to Mead Paper Company, were used for the same purpose. Raising poultry was another successful alternative pursued by some.

But for the thousands who left farming, other jobs, and often other homes, had to be found. For many, leaving the region altogether to seek work in major cities provided the solution, while others managed to get jobs in industries nearby. Some, however, were not so successful and became unemployed.

The mainstay for some former farmers, ironically, once more came out of the ground. An abundance of granite in Elbert County fostered a thriving industry. The first known stonemasonry occurred in the county in the 1850's with the production of granite tombstones. Quarrying and refining the mineral

steadily increased as the market for granite grew. Weather-resistant and pleasing to the eye, the stone earned Elberton the reputation as "the granite capital of the world"; that title is proudly displayed in bold letters on a sign downtown over a display of monuments.

This is how one resident, Carroll Mary Hudson, recalled the early years of the granite industry: "By 1920, they had three or four rock sheds in Elberton....The first little place where they cut granite was up on the side of the railroad, up just above the Seaboard Rail Line....A little place in there because they were afraid of the dust, you know. They wouldn't go in the shed, they would cut it in the outside there....They wouldn't wear a mask or anything, no way to protect themselves....That's really what made Elberton; we didn't have anything here. There wasn't too much cotton, since we would have bad crops

some years and that put it back. Good business in general we didn't have until the granite business come here. The granite industry is just what makes this county."

Using granite foundations for farm houses and outbuildings and constructing chimneys with a combination of granite and brick, became common in the area in the nineteenth century. Later, entire houses were made of granite, as well as the facades of businesses. Granite monuments for parks and signs also became popular.

By 1977, three or four rock sheds had grown to 125 companies for granite production. The Elberton Granite Association estimated that those businesses employed about 40 percent of the non-farming population of the region. By 1975, the value of the thousands of tons of stone these workers produced was \$3,662,000. Grave markers continued to be



Figure 200: The Hutchisons had many colorful quilts among the family heirlooms in their historical old house. Like many crafts, making quilts by hand has declined over the years.



Figure 201: Forcing granite from the quarries in Elbert County gave new economic health to the area.

the dominant commodity, accounting for 90 percent of the production.

Jumps in industrial employment also came in the other three counties studied. In Abbeville County, the number of manufacturing jobs increased from 20 to 60 percent of all jobs between the late 1940's and the 1970's, while in Hart County, the figure was even more startling: from less than ten percent to nearly 50 percent. Anderson County fared best of all, perhaps because its economy industrialized earlier than the others. In the late 1970's, the labor force in Anderson County was more than twice the size of the workforce in the other three counties combined. First textiles, then other manufacturing solidified the county's economic base.

With the start of construction in 1976 of the Richard B. Russell Dam, life changed quickly and dramatically in

some parts of all four counties. The Federal Government bought 52,000 acres along a 28-mile portion of the river and its tributaries. Eventually, 26,650 of those acres would be under water. Farmers and others in the path of the new Russell Lake that would form when the floodgates closed had to move, along with those occupying other land designated for road and railroad relocations and recreational areas.

Among the most dramatic relocations was the water transport of Blackwell Bridge. From its location over Beaverdam Creek in the southern part of the reservoir, the bridge was to be moved to

Coldwater State Park, which was created as a result of the dam. The Corps of Engineers managed the unusual feat with help from two U. S. Army combat engineer battalions from Fort Stewart. The soldiers participated as part of a training exercise.

Engineers had deemed Blackwell Bridge



Figure 202: Elberton, "Granite Capital of the World", displays locally-made monuments on Main Street downtown.

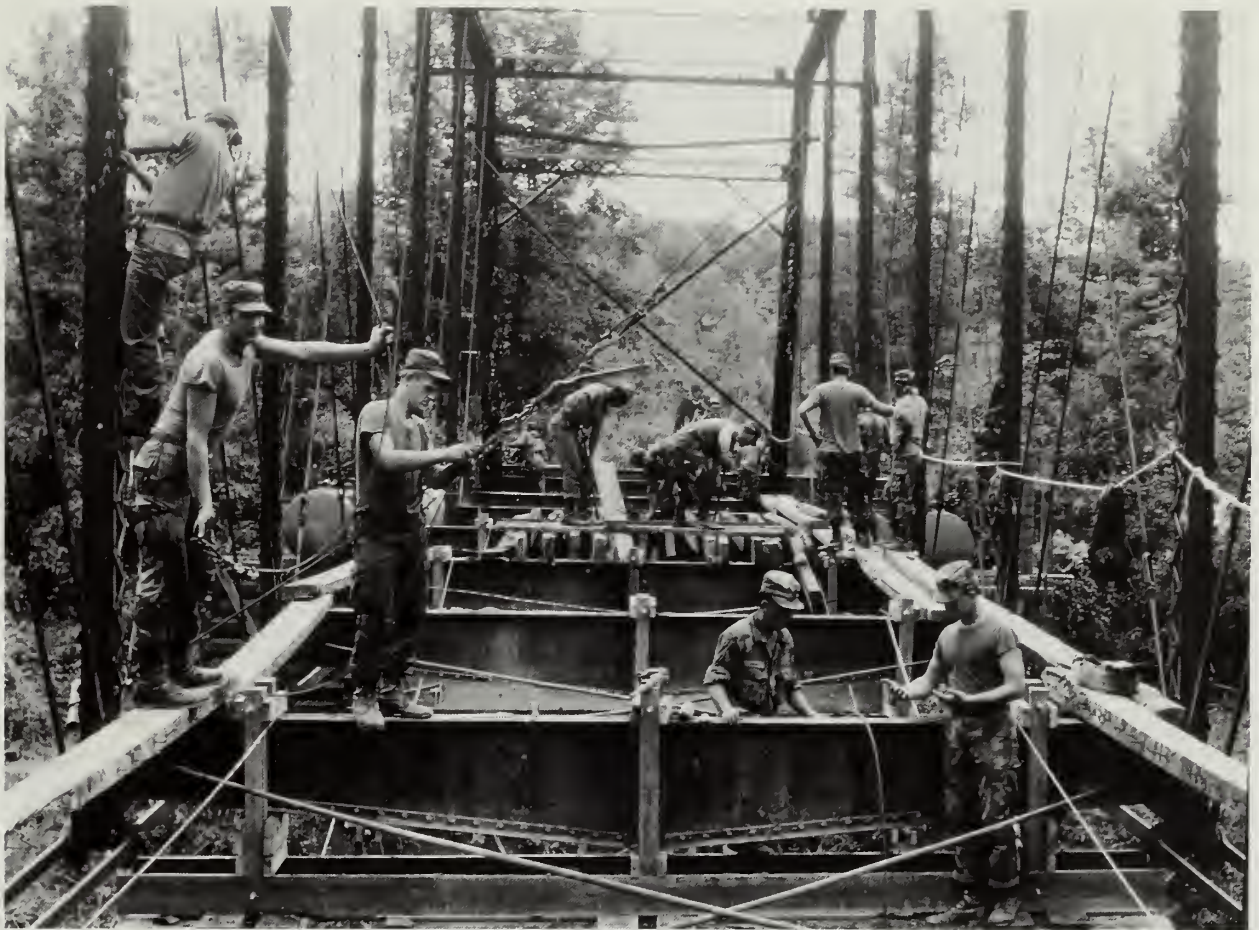


Figure 203: Blackwell Bridge was moved by water as an unusual training exercise for soldiers assisting the U. S. Army Corps of Engineers Savannah District.

worth saving because of its distinctive architectural value. Built around 1917, the bridge has a single span design and important features of the "American System" of pin connections. As a result of its significance, Blackwell Bridge was placed on the National Register of Historic Places.

Moving the bridge without any damage presented a rare engineering challenge. Crews first carefully measured its dimensions, then considered various transportation alternatives. After much deliberation, experts decided to dismantle part of the bridge deck and attach flotation devices to the main structure because that was likely to cause the least stress on the materials.

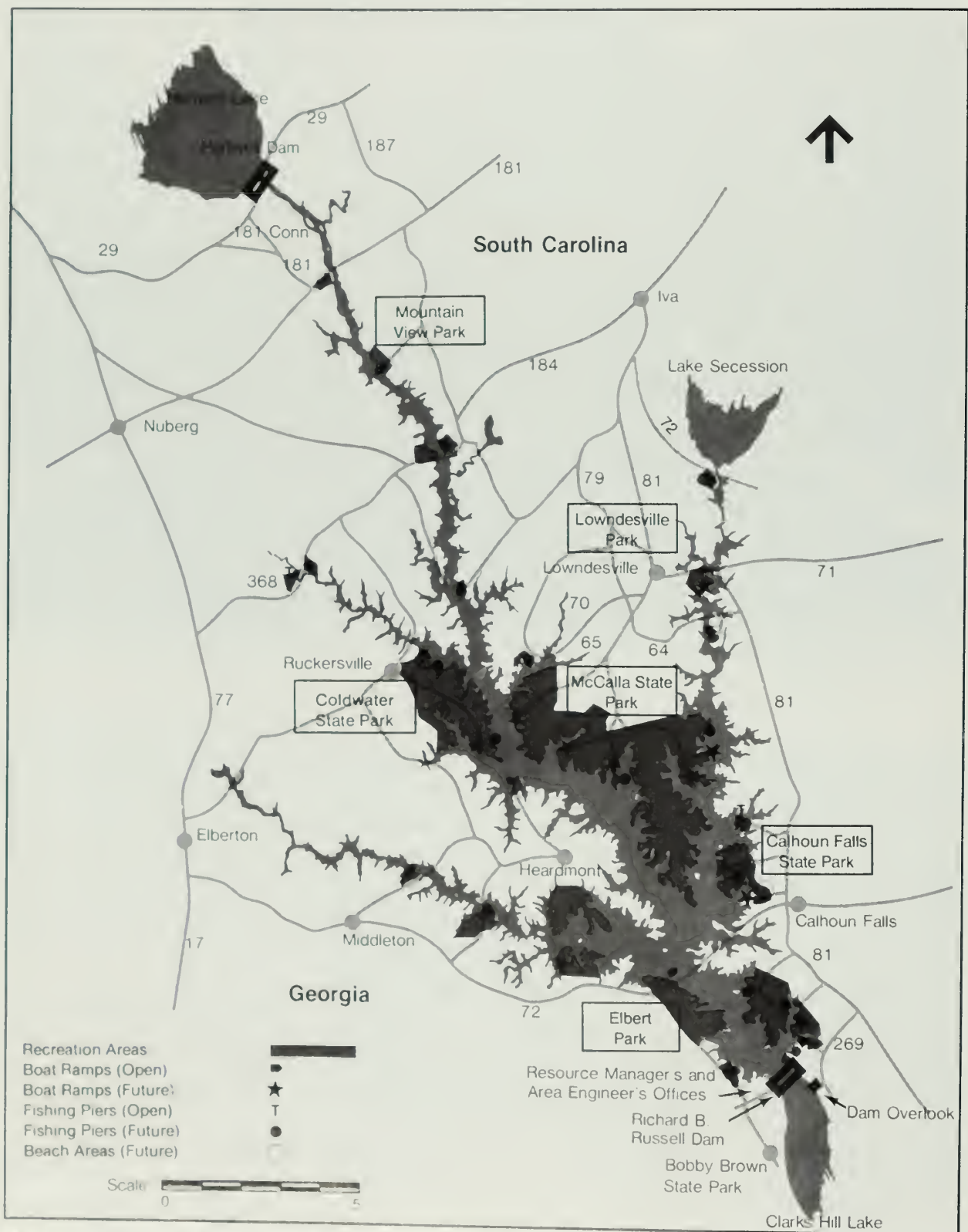
Guiding the bridge up water to its new spot was scheduled to coincide with and take advantage of the rising of the new Lake Russell

in late August and early September 1984.

After attaching steel dredging pontoons and styrofoam floats beneath the bridge, workers detached the entire structure from its granite abutments. Then Blackwell Bridge was ready to go for a ride. Soldiers towed the floating bridge behind new jet exhaust bridge boats, which were receiving one of their first performance tests.

When the remarkable convoy reached Coldwater State Park, 20-ton cranes took over, hoisting the bridge out of the water and into its new resting place over a stream in a secluded cove. A new deck was built, and Blackwell Bridge was ready to serve exclusively as a foot crossing for visitors passing along a hiking trail.

Regrettably, people sometimes were less favorably affected by the changes the new dam



Map 32: Six public parks now dot the landscape of the Richard B. Russell Recreation Area.



Figure 204: The Richard B. Russell Dam construction was illuminated at night.

brought. Speaking about the loss of his family's homeplace, the Alexander-Cleveland Farm, Windell Cleveland explained how painful the experience was: "It's not takin' your life, but in other words, it's the same as takin' your life—takin' something you've worked for years to build up....Land is precious, I tell you, people just don't realize what it means."

Today, the Richard B. Russell Dam reaches wide and high across the Savannah River, capturing, using, and controlling its powerful flow as the water generates hydroelectric power for the surrounding area. The barrier is a human accomplishment that would have stunned observers not so long ago who knew the river when little could be done to avoid its floods except to get out of the way.

On clear days, the big lake on the dam's north side looks blue and inviting; and, as expected, many come from both sides of the river to enjoy swimming, boating, and fishing

in its cool, deep waters. The landscape is now protected by the Corps of Engineers, who work to preserve a wildlife habitat and to safeguard the environment, including thousands of trees. There are many public spots for recreation, including three state parks, one named Calhoun Falls, and another called McCalla State Park, commemorating two names long prominent in the area.

But as time passes, fewer and fewer visitors will recall the buildings and other landmarks that once existed beneath these waters. And fewer still will remember the old tales of Indians and conquistadors, pioneers and slaves, revolutionaries and farmers, who once spent time by the water's edge.

Camping in parks along the lake shore is popular, and when night falls, people gather around fires that send sparks flying into the darkness, just as other distant fires did so long ago.

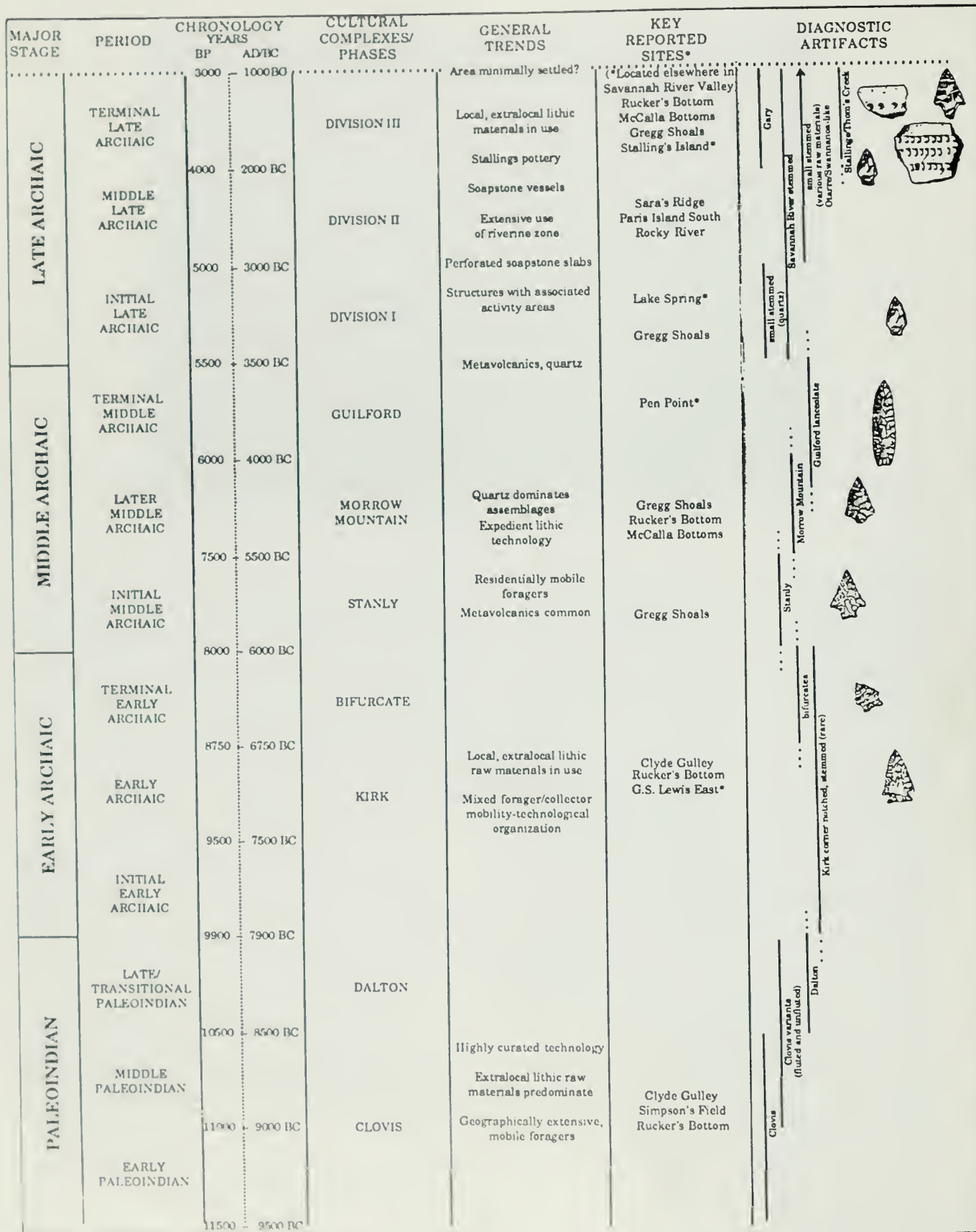


Figure 205: A timeline from PaleoIndians to the contemporary period shows the cultural sequences in the study area.

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Sites and Studies

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Key Investigators

Linda Worthy, Richard J. Cronenberger
 Lesley Drucker, Woody C. Meiszner, James B. Legg
 Dean Wood, Dan Elliott
 Linda Worthy, Richard J. Cronenberger
 James Rudolph, David Hally
 Dean Wood, Teresa Rudolph, Dennis Blanton
 Eleanor Ramsey, Patricia Turner, Shirley Moore
 Linda Worthy, Richard J. Cronenberger
 Marlessa Gray
 Ann Tippitt, William Marquardt
 Linda Worthy, Richard J. Cronenberger
 Victor Carbone, John E. Foss, Antonio Segovia, Mark Sheehan,
 Joseph Schuldenrein
 Robert Newman
 Linda Worthy, Richard J. Cronenberger
 Beverly Bastian
 Antonio Segovia
 Brooks Hutto
 Linda Worthy, Richard J. Cronenberger
 Marlessa Gray
 Ann Tippitt, William Marquardt
 Linda Worthy, Richard J. Cronenberger
 Linda Worthy, Richard J. Cronenberger
 Linda Worthy, Richard J. Cronenberger
 David Anderson, Charles Cantley, Andrea Lee Novick,
 Joseph Schuldenrein
 David Anderson, Charles Cantley, Andrea Lee Novick,
 Joseph Schuldenrein
 Marlessa Gray
 Darlene Roth, Stephen Grable, Dana White
 Michael Alterman, Dean Wood, Dan Elliott
 Linda Worthy, Richard J. Cronenberger
 Robert Newman
 Marlessa Gray
 Marlessa Gray
 David Anderson, Joseph Schuldenrein, Andrea Lee Novick,
 Charles Cantley
 Charles Orser, Annette Nekola, James Roark
 Dean Wood, Dan Elliott
 Robert Newman, Linda Worthy
 Robert Newman
 Linda Worthy, Richard J. Cronenberger
 David Anderson, Andrea Lee Novick, Charles Cantley
 Joseph Schuldenrein
 David Anderson, Joseph Schuldenrein, Andrea Lee Novick,
 Charles Cantley
 David Anderson, Joseph Schuldenrein, Andrea Lee Novick,
 Charles Cantley

Sara's Ridge	Dean Wood, Teresa Rudolph, Dennis Blanton
Simpson's Field	Dean Wood, Teresa Rudolph, Dennis Blanton
Soils	John Foss, Dan Wagner, Frank Miller
South Carolina Survey	E. Thomas Hemmings
Survey of Study Area	Richard Taylor, Marion Smith
Survey of Study Area	Albert Goodyear, Michael Harmon, William Monteith
Technical Synthesis-Prehistoric	David Anderson
Technical Synthesis-Historic	J. W. Joseph
The Beaverdam Group	Janice Campbell, Carol Weed
Thomas B. Clinkscales Farm	Lesley Drucker, Woody C. Meiszner, James B. Legg
Transect 21	Dean Wood, Dan Elliott
W. Frank Anderson Farm	Linda Worthy, Richard J. Cronenberger
White Mill	Robert Newman
W.M. Allen House	Linda Worthy, Richard J. Cronenberger
Van Creek	David Anderson, Joseph Schuldenrein, Andrea Lee Novick, Charles Cantley
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Bibliography

Alterman, Michael C.

1987 A Reassessment of Late Archaic Settlement and Subsistence Along the Upper Savannah River Valley: A View from the Richard B. Russell Reservoir. Unpublished PhD Dissertation, Department of Anthropology, Columbia University.

Anderson, David G.

1979 Excavation at Four Fall Line Sites: The Southeastern Columbia Beltway Project. Commonwealth Associates Inc., Report No. R-2008, Jackson, Michigan. Jointly released by South Carolina Department of Highways and Public Transportation.

Anderson, David G.

1985 Middle Woodland Societies on the Lower South Atlantic Slope: A View from Georgia and South Carolina. Early Georgia 13:29-66.

Anderson, David G.

1990 The PaleoIndian Colonization of Eastern North America: A View from the Southeastern United States. In Early PaleoIndian Economies of Eastern North America, ed. by Barry Isaac and Kenneth Tankersley, pp. 163-216. Journal of Economic Anthropology Supplement 5.

Anderson, David G., Charles E. Cantley, and Joseph Schuldenrein

1985 The Rufus Bullard Site (9EB76) Archeological Record. In Prehistoric Human Ecology Along the Upper Savannah River: Excavations at the Rucker's Bottom, Abbeville and Bullard Site Groups, assembled by David G. Anderson and Joseph Schuldenrein, pp. 149-174. Russell Papers, Interagency Archeological Services Division, National Park Service, Atlanta.

Anderson, David G., David J. Hally, and James L. Rudolph

1986 The Mississippian Occupation of the Savannah River Valley. Southeastern Archaeology 5:32-51.

Anderson, David G., Jerald Ledbetter, and Lisa O'Steen

1990 PaleoIndian Period Archaeology of Georgia. University of Georgia Laboratory of Archaeology Series Report No. 28, Georgia Archaeological Research Design Paper No. 6.

Anderson, David G., and Glen T. Hanson

1988 Early Archaic Settlement in the Southeastern United States: A Case Study from the Savannah River Basin. American Antiquity 53:262-286.

Anderson, David G., and J. W. Joseph

1988 Prehistory and History Along the Upper Savannah River: Technical Synthesis of Cultural Resource Investigations, Richard B. Russell Multiple Resource Area, Volumes I & II. Russell Papers, Interagency Archeological Services Division, National Park Service, Atlanta.

Anderson, David G., and Joseph Schuldenrein

1983 Mississippian Settlement in the Southern Piedmont: Evidence from the Rucker's Bottom Site, Elbert County, Georgia. Southeastern Archaeology 2:98-117.

Anderson, David G., and Joseph Schuldenrein

1985 The Rocky River Site (38AB91) Archeological Record. In Prehistoric Human Ecology Along the Upper Savannah River: Excavations at the Rucker's Bottom, Abbeville and Bullard Site Groups, assembled by David G. Anderson and Joseph Schuldenrein, pp. 215-249. Russell Papers, Interagency Archeological Services Division, National Park Service, Atlanta.

Anderson, David G., and Joseph Schuldenrein

1985 Prehistoric Human Ecology Along the Upper Savannah River: Excavations at the Rucker's Bottom, Abbeville, and Bullard Site Groups, Volumes I & II. Russell Papers, Interagency Archeological Services Division, National Park Service, Atlanta.

Bastian, Beverly

1982 Fort Independence: An Eighteenth Century Frontier Homesite and Militia Post in South Carolina. Russell Papers, Interagency Archeological Services Division, National Park Service, Atlanta.

Blanton, Dennis B.

1983 Lithic Raw Material Procurement and Use During the Morrow Mountain Phase in South Carolina. Unpublished M.A. thesis, Department of Anthropology, Brown University.

Brose, David S., and N'omi Greber (editors)

1979 Hopewell Archaeology—The Chillicothe Conference. Kent State University Press, Kent, Ohio.

Caldwell Joseph R.

1953 The Rembert Mounds, Elbert County, Georgia. Bureau of American Ethnology Bulletin 154: 303-320.

Campbell, Janice L., Carol S. Weed, and Prentice M. Thomas, Jr.

1984 The Beaverdam Group: Archaeological Investigations at 9EB92, 9EB207, 9EB208, and 9EB219, Richard B. Russell Multiple Resource Area, Elbert County, Georgia. Russell Papers, Interagency Archeological Services Division, National Park Service, Atlanta.

Charles, Tommy

1986 The Fifth Phase of the Collectors Survey. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, The Notebook 18:1-27.

Claflin, William H., Jr.

1931 The Stallings Island Mound, Columbia County, Georgia. Peabody Museum of American Archaeology and Ethnology Papers 14(1).

Deetz, James

1967 Invitation to Archaeology published for The American Museum of Natural History by The Natural History Press, Garden City, New York.

DeJarnette, David L., E. Kurjack and J. Cambron

1962 Stanfield-Worley Bluff Shelter Excavations. Journal of Alabama Archaeology 8 (1 & 2).

DePratter, Chester B.

1989 Cofitachequi: Ethnohistorical and Archaeological Evidence, from Studies in South Carolina Archaeology: Essays In Honor of Robert L. Stephenson. The University of South Carolina.

Dickens, Roy S., James L. McKinley, James H. Chapman, Leland G. Ferguson

1979 Frontiers in the Soil, The Archaeology of Georgia. Frontiers Publishing Company, Atlanta, Georgia.

Doran, Glen H., David N. Dickel, William E. Ballinger, Jr., O. Frank Agee, Philip J. Laipis, and William W. Hauswirth

1988 Anatomical, Cellular and Molecular Analysis of 8,000 year old Human Brain Tissue from the Windover Archaeological Site. Nature 323: 803-806.

Drucker, Lesley M., Woody C. Meiszner, and James B. Legg

1982 Testing and Data Recovery at Allen Plantation (38AB102) and Thomas B. Clinkscales Farm (38AB221).

- Richard B. Russell Multiple Resource Area, Abbeville County, South Carolina. Carolina Archaeological Services Resource Study Series 55.
- Elliott, Daniel T.
1981 Soapstone Use in the Wallace Reservoir. Wallace Reservoir Project Contribution 5.
- Ehrenhard, John E. (editor)
1990 Coping With Site Looting: Southeastern Perspectives. Interagency Archeological Services Division, National Park Service, Atlanta.
- Freeman, Douglas Southall.
1944 Lee's Lieutenants, A Study in Command. Charles Scribner's Sons, New York.
- Foss, John E., Dan P. Wagner, Frank P. Miller.
1985 Soils of the Savannah River Valley. Russell Papers, Interagency Archeological Services Division, National Park Service, Atlanta.
- Frison, George C.
1989 Experimental Use of Clovis Weaponry and Tools on African Elephants. American Antiquity. 54:766-784.
- Futato, Eugene M.
1986 Archaeological Curation at the Alabama State Museum of Natural History, Division of Archaeology. Manuscript on file, Mound State Monument, Moundville, Alabama.
- Gardner, William M.
1984 Culture and Environment in the Richard B. Russell Reservoir: A Summary of Investigations Between 1979-1981. Russell Papers, Interagency Archeological Services Division, National Park Service, Atlanta.
- Gardner, William M.
1989 An Examination of Cultural Change in the Late Pleistocene and Early Holocene (circa 9200 to 6800 B.C.). In PaleoIndian Research in Virginia: A Synthesis, edited by J. Mark Wittkofski and Theodore R. Reinhart, pp. 5-51.
- Goodyear, Albert C.
1988 On Study of Technological Change Current Anthropology 29:320-323.
- Goodyear, Albert C., John H. House, and Neal W. Ackerly
1979 Laurens-Anderson: An Archaeological Study of the Inter-riverine Piedmont. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Anthropological Studies 4.
- Gray, Marlessa A.
1983 'The Old Home Place,' An Archaeological and Historical Investigation of Five Farm Sites Along the Savannah River, Georgia and South Carolina. Russell Papers, Interagency Archeological Services Division, National Park Service, Atlanta.
- Gresham, Thomas H., and Karen G. Wood
1986 Archaeological Data Recovery at 38AB387 and 9EB368 Richard B. Russell Lake, Abbeville County, South Carolina and Elbert County, Georgia. Final Contract DACW21-86-M-0132 Report prepared for the U. S. Army Corps of Engineers, Savannah District, Savannah, Georgia.
- Gresham, Thomas H., Robbie F. Ethridge
1989 Archeology at the Mill Creek Site. Southeastern Archeological Services, Inc., Athens, Georgia.
- Hanson, Glen T.
1982 The analysis of Late Archaic-Early Woodland Adaptive Change Along the Middle Savannah River: A Proposed

- Study. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, The Notebook 14:5-38.
- Hanson, Glen T.
1985 The G.S. Lewis East Early Archaic Assemblage. Paper Presented at the Fall Meeting of the Society for Georgia Archaeology, Athens.
- Harmon, Michael
1986 Eighteenth Century Lower Cherokee Adaptation and Use of European Material Culture. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Volumes in Historical Archaeology 2.
- House, John H. and David Ballenger
1976 An Archeological Survey of the Interstate 77 Route in the South Carolina Piedmont. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Research Manuscript Series 104.
- Hudson, Charles M.
1976 The Southeastern Indians. University of Tennessee Press, Knoxville.
- Hudson, Charles M., Marvin T. Smith, and Chester B. DePratter
1984 The Hernando de Soto Expedition: From Apalachee to Chiaha. Southeastern Archaeology 3:65-77.
- Hudson, Charles M., Marvin T. Smith, David J. Hally, Richard Polhemus, and Chester B. DePratter
1985 Coosa: A Chiefdom in the Sixteenth Century United States. American Antiquity 50:723-737.
- Hutto, Brooks
1970 Archaeological Survey of the Elbert County, Georgia, Portion of the Proposed Trotter's Shoals Reservoir, Savannah River. University of Georgia, Laboratory of Archaeology Series 7.
- Jefferies, Richard W.
1978 The Tunacunnhee Site: Hopewell in Northwest Georgia. Hopewell Archaeology—The Chillicothe Conference. Edited by David S. Brose and N'omi Greber. The Kent State University Press, Kent, Ohio.
- Jones, Lewis P.
1971 South Carolina: A Synoptic History for Laymen. Sandlapper Publishing, Inc., Orangeburg, South Carolina.
- Joukowsky, Martha
1980 A Complete Manual of Field Archaeology—Tools and Techniques of Field Work for Archaeologists. Prentice-Hall, Inc., Englewood Cliffs, New Jersey.
- Kelly, Arthur R.
1973 Early Villages on the Chattahoochee River, Georgia. Archeology 26:32-37.
- Larson, Lewis H., Jr.
1972 Functional Considerations of Warfare in the Southeast During the Mississippian Period. American Antiquity 37:383-392.
- Ledbetter, R. Jerald, Stephen A. Kowalewski, and Lisa O'Steen
1984 Chert of Southern Oconee County, Georgia. Early Georgia 9:1-13.
- Lee, Chung H.
1976 The Beaverdam Creek Mound (9EB85), Elbert County, Georgia. Unpublished manuscript on file at Department of Anthropology, University of Georgia, Athens.

- Lewis, Thomas M. N. and Madeline Kneberg
1961 Eva: An Archaic Site. University of Tennessee Press, Knoxville.
- McIntosh, Jane
1986 The Practical Archaeologist—How We Know What We Know About The Past. The Paul Press Ltd., London.
- Meltzer, David J.
1989 Why Don't We Know When the First People Came to North America? American Antiquity. 54:471-490.
- Michael, Henry N. and Elizabeth K. Ralph (editors)
1971 Dating Techniques for the Archaeologist. The MIT Press, Cambridge, Massachusetts.
- Miller, Zell
1983 Great Georgians. Advocate Press, Franklin Springs, Georgia.
- Morrison, Samuel Eliott and Henry Steele Commager.
1962 The Growth of the American Republic. Oxford University Press, New York.
- Morse, Dan F. and Phyllis A. Morse
1980 Zebree Archaeological Project: Excavation, Data Interpretation, and Report on the Zebree Homestead Site, Mississippi County, Arkansas. Unpublished manuscript on file, U.S. Corps of Engineers, Memphis, TN.
- Newman, Robert D.
1984 Archaeological Investigations at Seven Mill Sites. Russell Papers, Interagency Archeological Services Division, National Park Service, Atlanta.
- Orser, Charles E., Annette M. Nekola, and James L. Roark
1987 Exploring the Rustic Life: Multidisciplinary Research at Millwood Plantation, A Large Piedmont Plantation in Abbeville County, South Carolina and Elbert County, Georgia. Russell Papers, Interagency Archeological Services Division, National Park Service, Atlanta.
- O'Steen, Lisa D.
1983 Early Archaic Settlement Patterns in the Wallace Reservoir: An Inner Piedmont Perspective. Unpublished MA Thesis, Department of Anthropology, The University of Georgia, Athens.
- O'Steen, Lisa D., R. Jerald Ledbetter, Daniel T. Elliott, and William W. Barker
1986 PaleoIndian Sites of the Inner Piedmont of Georgia: Observations of Settlement in the Oconee Watershed, Early Georgia 13 (In Press).
- Ramsey, Eleanor, Patricia Turner, and Shirley Moore
1986 Power Without Power: Afro American Culture History Survey and Evaluation Richard B. Russell Project. Unpublished manuscript on file at U. S. Army Corps of Engineers Savannah District.
- Rudolph, James L. and David J. Hally
1985 Archaeological Investigation at the Beaverdam Creek Site (9EB85), Elbert County, Georgia. Russell Papers, Interagency Archeological Services Division, National Park Service, Atlanta.
- Rudolph, Teresa P.
1986 The Late Woodland 'Problem' in North Georgia. Paper presented at the 43rd Annual Meeting of the Southeastern Archaeological Conference, Nashville, Tennessee. November 6, 1986.
- Sassaman, Kenneth E.
1983 Middle and Late Archaic Settlement in the South Carolina Piedmont. Unpublished M.A. thesis, Department of Anthropology, University of South Carolina, Columbia.

Sassaman, Kenneth E.

1991 Economic and Social Context of Early Ceramic Vessel Technology in the American Southeast. PhD dissertation, Department of Anthropology, University of Massachusetts, Amherst.

Schiffer, Michael B.

1975 Some Further Comments on the Dalton Settlement Pattern Hypothesis. In The Cache River Archaeological Project: An Experiment in Contract Archaeology, assembled by Michael B. Schiffer and John H. House, pp. 103-112. Arkansas Archaeological Survey, Research Series No. 8.

Sears, William H.

1956 Excavations at Kolomoki, Final Report. University of Georgia Series in Anthropology, No. 5.

Segovia, Antonio V.

1985 Archeological Geology of the Savannah River Valley and Main Tributaries in the Richard B. Russell Multiple Resource Area. Russell Papers, Interagency Archeological Services Division, National Park Service, Atlanta.

Sheehan, Mark C., Donald E. Whitehead, and Stephen T. Jackson

1985 Late Quaternary Environmental History of the Richard B. Russell Multiple Resource Area. Russell Papers, Interagency Archeological Services Division, National Park Service, Atlanta.

Smith, Betty A.

1979 The Hopewell Connection in Southwest Georgia. In Hopewell Archaeology and the Chillicothe Conference, edited by David S. Brose and N'omi Gerber, pp. 181-187. The Kent State University Press, Kent, Ohio.

Smith, Bruce D.

1974 Middle Mississippian Exploitation of Animal Populations: A Predictive Model. American Antiquity 39:274-291.

Struever, Stuart and F. A. Holton

1979 Koster. Anchor Press, Garden City, New York.

Taylor, Richard L. and Marion F. Smith (editors)

1978 The Report of the Intensive Survey of the Richard B. Russell Dam and Lake, Savannah River, Georgia and South Carolina. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Research Manuscript Series 142.

The History Group, Inc.

1981 Historical Investigations of the Richard B. Russell Multiple Resource Area. Russell Papers, Interagency Archeological Services Division, National Park Service, Atlanta.

Thomas, David H. and Clark S. Larsen

1979 The Anthropology of St. Catherine's Island 2. The Refuge-Deptford Mortuary Complex. Anthropological Papers of the American Museum of Natural History 56(1).

Tippitt, V. Ann and William H. Marquardt

1984 Archaeological Investigations at Gregg Shoals, A Deeply Stratified Site on the Savannah River. Russell Papers, Interagency Archeological Services Division, National Park Service, Atlanta.

Trinkley, Michael B.

1984 The Archaeology of Sol Legare Island, Charleston County, South Carolina. Chicora Foundation Research Series 1.

Trinkley, Michael B.

1986 Indian and Freedman Occupation at the Fish Haul Site (38BU805), Beaufort County, South Carolina. Chicora Foundation Research Series 1.

Tyzzar, Robert N., III

1986 Human Skeletal Remains from 38AN8 and 38AN126. In Prehistory in the Richard B. Russell Reservoir: The Archaic and Woodland Periods of the Upper Savannah River: The Final Report of the Data Recovery at the Anderson and Elbert County Groups: 38AN8, 38AN29, 38AN126, 9EB17, 9EB19, and 9EB21, by Wood, W. Dean, Dan T. Elliott, Teresa P. Rudolph, and Dennis B. Blanton, pp. 361-369. Russell Papers, Interagency Archeological Services Division, National Park Service, Atlanta.

Van Doran, Mark (editor)

1985 Travels of William Bartram. Dover Publications, Inc., New York.

Ward, Anne

1977 Adventures in Archaeology. The Hamlyn Publishing Group Limited, London and New York.

Watson, Patty Jo

1976 In Pursuit of Prehistoric Subsistence: A Comparative Account of Some Contemporary Flotation Techniques. Midcontinental Journal of Archaeology 1:77-100.

Wauchope, Robert

1966 Archaeological Survey of Northern Georgia. Society for American Archaeology, Memoir 21.

Wood, W. Dean, Dan T. Elliott, Teresa P. Rudolph, and Dennis B. Blanton

1986 Prehistory in the Richard B. Russell Reservoir: The Archaic and Woodland Periods of the Upper Savannah River: The Final Report of the Data Recovery at the Anderson and Elbert County Groups: 38AN8, 38AN29, 38AN126, 9EB17, 9EB19, and 9EB21. Russell Papers, Interagency Archeological Services Division, National Park Service, Atlanta.

Wood, W. Dean

1981 An Analysis of Two Early Woodland Households from the Cane Island Site, 9PM209. Department of Anthropology, University of Georgia, Wallace Reservoir Project Contribution 4.

Worthy, Linda (editor)

1983 All That Remains: The Traditional Architecture and Historic Engineering Structures in the Richard B. Russell Multiple Resource Area, Georgia and South Carolina. Russell Papers, Interagency Archeological Services Division, National Park Service, Atlanta.

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"Land is precious, I tell you, people just don't realize what it means."

These words were spoken by Windell Cleveland and recorded by investigators in a far-reaching historical and archeological study of people who lived near the Savannah River in Georgia and South Carolina. The research took nearly 20 years to complete and examined human existence through the ages up until modern times. Ancient artifacts from some of the earliest people in North America were among the many discoveries.

The Cleveland home was among many structures traced through the years. It was originally part of the town of Edinburg, which thrived in the early 1800's as a summer resort. But people eventually abandoned the community, like many other places described in *Beneath These Waters*, and Edinburg became one of Georgia's ghost towns.
